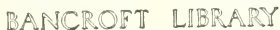


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James Denman

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VOLUME VII.



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No. 1

EDUCATORS OF THE PACIFIC SLOPE.—IV.

JAMES DENMAN.

IN a professional man, and that profession teaching, an eventful career seems almost an anomaly. Yet few men have had a broader view of life and its opportunities than has been afforded by the experience of the subject of our sketch.

James Denman was born in Neversink, Sullivan County, New York, on April 14th, 1830, and hence is fifty-three years of age. He looks much younger; his step has still all the buoyancy of early manhood, his heart all the ardor and enthusiasm of the man who feels that there is a world of useful and important work remaining before him. This pioneer teacher is of good stock, and comes from an old New York family of English ancestry. He was educated in the public schools of Sullivan County until 1847, when he entered the New York State Normal School; and having added the study of Latin, French, and mathematics to a thorough English course, graduated September, 1849. Thus at the early age of nineteen his talents and energy made him conspicuous as a student. He at once entered upon his chosen profession, and commenced teaching in the Dutchess County Academy. After one term he taught in the Sullivan County Institute at Monticello. His close application to studies and the rigors of the eastern climate affected his health, and he resolved to temporarily give up the profession and travel to restore his

strength. At that time the California fever was at its height, and Mr. Denman determined to seek his fate and fortune on the distant shores of the Pacific. The sea voyage partly restored his shattered health, and he landed in San Francisco on September 17th, 1851; but, unfortunately, while at Panama he contracted what was known as the Panama fever, with which he was stricken upon his arrival here. The attack continued several months, preventing him from going to the mines in search of the golden fortune of which thousands of adventurous men were in search. It was probably owing to this affliction that the future course of his life was determined, and that the city and State has had one of its most eminent educators, instead of a miner whose fortunes might have been great; but had he met the fate of the majority, far otherwise. His sickness cured him of his golden mining visions, and once more his mind turned toward the object of his first ambition—teaching. About the time of his arrival here, the first free schools were organized in the city, and Mr. Denman, after having passed a successful examination, was chosen to take charge of the Happy Valley School, which was the first free school established under our present system. Since then the name of James Denman has been thoroughly engraven in the history of our public schools, and his name has been closely identified with every step of their rise and progress.

He continued teaching from 1851 to 1857, the school in the mean time having been removed from the little building first occupied, on the corner of Second and Minna streets, to more commodious quarters at the corner of Bush and Sansome streets, and afterwards to the brick building erected for that purpose on the corner of Bush and Stockton streets. Owing to ill health, Mr. Denman resigned his position on the 4th of May, 1857, and retired to a handsome ranch he had purchased near Petaluma. He did not retire, however, without bringing with him the cherished remembrance of teachers, pupils, and other friends. The Teachers' Institute of San Francisco petitioned the board of education to have the first public school which he had organized and so long taught, named the Denman Grammar School. The board granted the request, and unanimously passed an order fully appreciating the services of Mr. Denman as a pioneer teacher, and the great services he had rendered public education. Having recovered his health, he determined to study for the legal profession, and was engaged in reading law in the autumn of 1859, when once more circumstances, as well as a not-to-be-uprooted love for educational work, brought him back to his old profession.

He was urged to accept the nomination of Superintendent of Public Schools on the Democratic ticket, and was elected by a large majority, although every other candidate on the ticket was defeated. He relinquished his legal studies, returned to the profession of his early choice, serving three years as superintendent with characteristic success and popularity. In April, 1862, he went East, visited Washington, and was an observer in the McClellan campaign for the capture of Richmond, acting in the capacity of war correspondent for a California journal. In the following month of July he sailed for Europe, traveling through Great Britain, France, Switzerland, Germany, Holland, and Austria, visiting the best educational institutions, and closely

examining their systems. He resided eight months in Paris, availing himself of the advantages of the great capital, attending the sessions of the French Academy, hearing lectures on law, medicine, and general literature delivered by some of the master minds of Europe.

He returned to this city in 1864, to find a fine, large, sixteen-class brick school building erected on the north-west corner of Bush and Taylor streets, ready to be occupied, and named in his honor. The old Denman Grammar School was removed to its present location in July, 1864, and on the 3rd of that month the welcome return of Mr. Denman was complimented by his re-election as principal of that school. He remained principal until 1867, when he was re-elected superintendent of public schools. He retained this office for three years, when, in January, 1871, he was again elected principal of the Denman School. This term of office expired in 1873, and for the third time he received the high honor of election as superintendent of public schools. He held this position until 1876, and in June of that year he was for the fourth time elected principal of the school bearing his name, and still fills this important position.

Mr. Denman's work is shown in a hundred places. His pupils may be found in every part of the coast, the wives and mothers of a free and growing people.

His contributions to our educational literature have been voluminous and important. In his reports he has always shown a broad catholicity of thought, being not merely abreast but well ahead of the times. As a trustee of the State Normal School, and a member of the State Board of Education, his work has always been for the substantial benefit of future generations.

As superintendent, teacher, and citizen, his influence, wide-spread and yet deep, is not for his life-time alone, but will direct the destiny of generations for ages to come.

L.

BOARDING THE TEACHER.

YES, Miss White, I've had my fill of boarding school-ma'ams. Them as wants to do it can do it for all of me, but I don't board nary another school-ma'am for twice three dollars a week. A year ago last November, just before killing-hog time, there was a soft-spoken, slick young woman came up to the door, driven by a spruce young city chap that looked as if he'd just walked out of a tailor's shop, and she just waited so for him to hitch his horses and come around to help her out, that I made up my mind she wasn't a bit capable.

She spoke so soft, though, and said she was a-going to teach our school, and asked me if I couldn't manage to keep her, that I thought I would try it, seeing it was only for four months; and I thought I could stand it to board 'most anybody for four months, if it was the Old Nick himself, so I agreed to take her. I thought I would fix up a little, as she might be particular, so I

went to the expense of getting a new paper wash-basin, and put a big lard-pail full of water down by the chair I put the basin on. I hung a good new crash towel over the back of the chair, and the room was scrubbed up as clean as a new pin. I thought I would put Sarah Ann to sleep with the teacher, for though she does snore a little now and then, she don't kick like Susan Jane does. I declare to gracious, no one ever can keep any clothes over Susan Jane ! And I hung a big sheet across between the teacher's bed and the place where the boys and the hired man slept, and I thought any reasonable woman ought to be satisfied with all them accommodations.

But she was the beatin'est critter to complain that you ever did see, and so helpless. She didn't want to make her own bed, nor sweep her own room, nor keep the lard-pail full of water for her to wash out of; though I just made up my mind she could come to the table with her face dirty before I'd slave to her that much.

She hadn't been used to sleeping with any body, and Susan Jane's and the hired man's snoring made her nervous; and she just talked about that sheet and the hired man behind it as though he was "a roaring lion seeking whom he might devour." And the feller found out she was skeered, and he began hinting how he was troubled sometimes with walking in his sleep, till he got that poor critter so nervous I had to put a stop to it. I told him I'd put a stop to his walking in his sleep with a broom handle if he went around playing spook.

She had been used to a spring bed, and the children used her brush and comb; and she was shocked because there wasn't any butter-knife; and she was mortal afraid the boys would cut their mouths from eating with their knives, and they took such big mouthfuls she was afeard they would choke; and she couldn't eat with any spoon except her own silver one; and hot bread give her the dispepsy; and too much pepper made her heart burn; and too strong coffee gave her a nervous attack. I declare to gracious, if I didn't tell her one day a piece of my mind, that did her good and me too.

She would come home from school, and flop down on the bed, clean, plum give out, you'd 'a' thought; but if there was a dance, she could jump around with any of them. She couldn't even do her own washing, though I offered her the use of my tubs and soft soap if she wanted 'em; but she was that trifling she'd ruther hire. She had a funny-looking fixing that looked as if it come off 'en a cotton-tail rabbit for to put powder on her face, and she had that brush for her face, and a brush for her clothes, and a brush for her hair, and a brush for her teeth, and even a brush for her finger nails.

The most particularest old maid of a woman you ever did see ! And she was so ignorant too. She might a knowed enough to teach school, but about useful things, my Tom could beat her all holler, and he was only five last 14th of September. She didn't know potatoes from cabbage till they were cooked. And one day when she went out to see the children milk, and she said she wanted to see if she could milk, and my Dick set her down to a farrow cow that had been dry for six months (she said she'd ruther milk that cow because she had no horns), she worked away till old Muley gave her a kick to drive a

little sense into her. And she was a-going to give a lecture about the skull one day, and asked Dick to fetch a cow's skull to school; and he brought a horse's head with a couple of horns stuck in the eyes, and she never knowed the difference till all the school was all a-laughing at her.

She made so much fuss about having their hair nicely combed at morning and noon that all the boys had theirs cropped off as close as a bald-headed Dutchman. And they had to make their manners, and say good morning, rain or shine; and she wanted them all to sing, though I told her my Dick and some of the others had no more sing in them than a wet hen.

And then she was always around under foot in the kitchen, though she wouldn't lift a finger to help set the table even. She couldn't eat brown sugar, and molasses made her sick, and I just got so sick of it before a month was over, that I just felt like offering to pay her board if she would go to Johnson's, for I'd like to get even with the Johnsons for letting their cows break into our corn field so many times. No, Miss White, I wouldn't take another school-ma'am to board for love nor money. I might take a civil *man* teacher, but another school-ma'am—NEVER!

C. M. DRAKE.

Saticoy.

POPULAR EDUCATION.—II.

THE system of free universal education in America has elevated labor, and to a certain extent made capital its suppliant. Improvements in mechanical implements have broadened the field for capital, and thereby increased the opportunities for labor. To the advancement of both is due the increased intelligence of the people. To the mechanic who directs his work by studied thought, who adapts means to an end, whose education gives him skill, capital throws wide her doors. If this be not so, it were better to close our schools, resolve our artisans into serfs, and allow government to use them in the construction of useless works, as did Egypt when she built her grand but useless pyramids. Since the vast majority of the people are and ought to be artisans, it is but just the instruction given in our schools should keep this fact in view. We claim, then, that it is the duty of educators, as soon as time and circumstances will permit, to enforce instruction in the elementary knowledge of domestic arts, of mechanics, and of agriculture. We are not prepared to champion industrial education, but we do claim that such instruction should be imparted in our schools as may be practically applied in any profession or trade to which inclination may turn our graduates.

It is claimed by some that our schools are "over-educating" and sending out graduates who abhor labor, and are overcrowding the professions where they expect to make an "easy living." Though the school may be partially faulty, yet there are other agencies still more so. If our pupils were raised to respect skilled labor, and were taught that all labor is honorable, there would be no occasion for such complaints. One great need of our common country, and especially California, is the elevation of labor.

While we cannot claim our schools are not improving, we can claim that they are not accomplishing all that may be expected of them. In the first place, they are not practical in their instruction. Take two-thirds of the grammar pupils in our schools, and they are not apt in the computation of a small bill of goods. Why is this thus? Because they never know they studied arithmetic for such purposes. It is the same way with the rest of the curriculum. Our system of instruction seems to be backward. Our pupils are introduced to the mysteries of astronomical geography before they know what a plain is, though they have lived upon one all their days. Their young souls "are harrowed up" over puzzling examples, for which they'll have no use in this world, and I very much doubt in the next. Much time is given to rote drill in arithmetical inconsistencies, grammatical misanalysis, useless spelling, and written examinations, which should be condensed for the introduction of the natural sciences. Inquiry for, instead of the use of, is the child's first mental activity. Controlled by the senses nature has given, it wanders to the field and river to inquire into her mysteries. To a certain extent, our systems check instead of encouraging this tendency, by cultivating memory and leading the child into the abstract. During this important period of mental growth, observation lies dormant, and inquisitiveness is stunted. Knowledge in the abstract, being of no apparent use to a child, is distasteful, is not put into practice, and is ever hated. A knowledge of the natural sciences can be gained only by practical illustration and observation. It therefore makes other studies interesting by preparing a good groundwork, makes knowledge enviable, and inspires in the child a love for learning which makes him an industrious man. Very few of our graduates pursue study through life, hence we claim that we need to make study not only interesting but satisfactory to the pupil. Then invention and patriotism will not lack for volunteers, and there would be a higher culture among our people.

Have we a science of education? If there is a science of education, it ought to lay down general principles which may be universally practicable. Is there an art of teaching? If there be any psychology, there must be didactics. We claim that there is a science of education, and an art of teaching; but science advances, and art improves. Teachers know how grand their profession really is, and what a profound and experienced mind it requires to wholly fulfill its duties. Hence we claim that teachers as a class are not highly enough cultured, and lack in professional training. They are good men and women; self-immolated martyrs; noble souls; a mighty host against ignorance. But their systems are many, and virtually empirical. The fault is surely not with the teachers. All the professional instruction many of our teachers and our teachers' teachers get is in the high schools and academies, and I might even say our universities. Who ever saw a college graduate a professor of didactics by training? Since there is no chair of didactics in our colleges and universities, those as a rule who teach our teachers are not truly capable of filling such positions. It is not thus in other professions. Right here is the missing link in our normal-school system. Our normal schools are the safeguards of our profession as a profession; then if we would elevate

it, the standard of our normal schools must be raised. Can a teacher be too well prepared for this most responsible of all professions?

There are some potent influences, over which a teacher has no control, that not only work against him, but are an injury to the profession. The people as a rule take no interest in school. While they are anxious their children should learn, they are unmindful of the duties of teacher and pupil, and have no idea of the extent of an education. There is an insidious agent who is opposed to the teacher's success, and unless he is soon captured will hurt the profession. It is this constant universal change of teachers. The choleric disposition of a few should not be the measure of a teacher's success. His position should hold good while he does his duty and maintains his integrity. But the grossest, most dangerous influence is that of the narrow-minded, little-souled, parsimonious egotist, who is found in most every community, and whose highest ambition is to control ward politicians and direct a political caucus for justice of the peace through his monetary influence. In all times there have been those who were opposed to the elevation of their fellow-men through intellectual cultivation. In the past it came from those jealous of dividing their learning with "the herd." At present it comes from the ignorant and miserly. Ignorance is ever plethoric with its own importance, and measures every issue from the narrow limits of its own blinded experience. Being satisfied with its own condition, it is not exercised over the condition of others. Ignorance alone is a feeble opponent, but when united with parsimony it becomes a fearful antagonist. What is it that opposes any improvement in text-books? What is it that clamors for a reduction in teachers' salaries? Who is it that would house a horse better than his own child? It is disgusting to hear *old* men praising their log school-houses in comparison with our modern school architecture, and saying how much more they know with three months' learning they once received than some of our apt students. The experience which frosted their brows has lacked something in its instruction.

There is no field of labor for the educator that is more inviting than California. The inhabitants are not only made up of immigrants from the rest of the Union, with their various local peculiarities, but there has been a large immigration of foreigners among us, whose customs are different, owing to their education and government, making it necessary for the adoption of a broad system of instruction in order to unite these dissimilar elements into a unified citizenship. We love our country and its institutions, and would claim the prerogative of preserving them against foreign intrusion; yet it is our duty to so conform them to our cosmopolitan population as to secure the mental advancement of all.

Private institutions do perhaps give some who have the brains and means a higher education; but for the equal advancement of the masses, for true American citizenship, we must depend alone upon our common schools. They are the safeguard of the nation. They are the beacon lights which warn the ship of state off the dangerous coasts of superstition and despotism. O America! Columbia! thy hopes, thy destiny, the happiness of thy children, rest in the common school!

It would be an injustice to the teacher and his profession to forget him. Though the teacher has not title to his profession, yet of all the agencies exercised for the advancement of the world's best interests, the teachers of our schools deserve the highest honor and commendation. Reward? No. Prosperity? No. Fame? No. What, then, is the teacher's heritage? An honored and prosperous country, an advanced civilization, a fraternized world. Though his name may be forgotten, his works, like Plato's soul, "will live amid the wreck of matter and the crush of worlds."

Fellow-teachers, let us not withdraw from this occasion unmindful of the duties we owe popular education. We are the motive power of our country's prosperity; we are the protectors of our American institutions; we are the transmitters of this glorious liberty bought and purchased with our fathers' blood. Civilized man, without liberty, without society, without morality, without religion, is a world without its skies. Bright examples are our heritage. Future generations appeal to us, and from the shades of the past the spirits of all great educators wave us onward in this great and beneficent work. Let us, then, as the guardians of those upon whom shall soon rest the responsibility of government, discharge with fidelity our sacred duties by guiding them to a nobler majority, and arouse in them higher and holier aims. Let us wind our arms around the common schools, and with them rise to meet the problems of ever-developing civilization.

C. B. WEBSTER.

Solano County.

CORRESPONDENCE.

PRIMARY LIFE DIPLOMAS.

DURING the session of the in-coming Legislature, we shall, no doubt, have the usual batch of amendments to the school law. There are several needed amendments that I would like to suggest, did time and space permit. I shall note but one at this writing.

Amend section 1521 so as to empower the State Board of Education to issue primary life diplomas, or life diplomas on second-grade certificates, to persons who have been successfully engaged in primary teaching at least ten years. County boards of education could issue second-grade certificates to the holders of these diplomas.

Primary teaching should be made a specialty. Those teachers who show an aptness for that department of teaching should be encouraged to devote their time and energy to perfecting themselves in their work. To compel such to cram biennially with puzzling arithmetical problems, difficult grammatical constructions, and orthographical monstrosities to pass examination is as absurd as it is unjust.

Several boards in the State have issued first-grade certificates on second-grade certificates so as to render the holders eligible to procure life diplomas.

This plan is open to serious objections. County and city boards, without exception so far as I know, recognize life diplomas as credentials upon which first-grade city or county certificates may be granted. The board that recommends the holder of a first-grade procured on a second-grade certificate to the State board for a life diploma does an injustice to other boards. His life diploma certifies that he is competent to teach branches in which he has not been examined, and of which perhaps he knows nothing.

As the law is now, the plan of raising second-grade certificates to first is the only one by which the holders of such certificates can obtain life diplomas, and was no doubt adopted to reward deserving primary teachers who had not the time to prepare themselves for the examination necessary to procure a first-grade. A life diploma granted for primary work would relieve the holder from the necessity of being examined at every change of residence. It would show on the face to what special department of teaching the holder had directed his time and attention.

J. M. GUINN.

Los Angeles City.

EDITOR JOURNAL—I have read with interest and profit the admirable educational methods outlined and hinted at in Mr. Drake's contributions to the JOURNAL, and notably so in the serial lately appearing under the caption of "A Hoodlum." Mr. Drake possesses in a marked degree the faculty of entertaining and instructing, by weaving common-sense ideas in an original and picturesque manner into the thread of a pleasant educational story. If he would confine himself to that, he would be a success. But when he wanders off and lugs in what is evidently a pet theory, foreign to the subject, as in your October number, he seems to shift onto a new tack, where he does not appear at all at home—at least, he does not exhibit his usual candor, fairness, and good sense. Like many other men of talent who are successful in their specialties, but who are all at sea the moment they get out of their accustomed channels, so he, it would seem, has swung off to so radical an extreme that he convicts himself of that very bigotry and intolerance of opinion of which he accuses the "church people."

Mr. Drake avers that the demands of the church people in this State are as follows:

- "1. That men shall observe the Christian Sabbath.
- "2. That all the people shall support the church in certain ways by taxes.
- "3. That the laws shall favor them in various ways because they are in the majority.
- "4. That the moral training of children shall be given into their hands."

Taking these statements as his premises, Mr. Drake, with very little deduction of argument, makes out his case. Were the premises sound, conclusions might be deduced which would make out a strong case in the direction started. Admitting the first statement to be true (and it carries with it its

own argument for being), I deny the truth of the remaining three. As Mr. Drake has made the charges, upon him rests the burden of proof. He has not proved them, and cannot. I deny that a tithe of the church people (especially the members of the Protestant churches) make any such demands, or would wish to see them enforced. Mr. Drake must have fallen into companionship with some very intolerant sects, and evidently judges the whole church-going population of California by them. As regards the fourth statement, I am sure that the majority of the church people of this State, instead of demanding that the moral training of children be given exclusively into their hands, would be glad if the public schools as such gave twice as much time and attention to that point as they do now. The church people are the last to want to eliminate moral training from the public schools.

Mr. Drake has evidently mapped out his writings in the present instance in such a way as to allow himself a broad latitude without being accused of digression from his theme. But when an educational article, professing to explain and teach methods, is used as a mask from behind which to make an onslaught against the best friends of the public schools, I feel that it would not be right that such statements should go forth to the people of this State unchallenged, as representing the ideas of any considerable share of the public-school teachers.

To disarm any criticism that may arise, to the effect that this reply comes from a prejudiced source, I will here state that I am not a member of any church, but merely wish to see fair play on all sides.

W. B. TURNER.

Pescadero.

THE CHILDREN'S DISCOVERIES.

TWO test-tubes, a little powdered chlorate of potassium, three or four long splinters of wood, and a small spirit-lamp are on the teacher's desk. At her side stand Jack and Mabel, while around and in front of her are many happy little children.

"We are all going to perform an experiment," says the teacher. Evidently nothing could suit better. Mabel writes the names of the articles to be used on the board. Several of the children think they know all about chlorate of potassium, as they have taken it for a sore throat. Jack, who is seven, drops a small portion of the chlorate into the tube, which the teacher holds over the lighted lamp, by means of a folded piece of brown paper. "Discoveries!" says the teacher. Immediately many little hands are raised.

"The chlorate snaps." The glass is cracking." "No, it's the potassium." "The chlorate is melting." "It's a liquid."

"What was it before, Jack?" "It was in ever so many little pieces, and now they have all run together."

"How do we describe a substance when it exists in this form?" holding up the chlorate which has not been heated. "It's a solid." The children give familiar examples of solids and liquids.

"Well, Charlie?" "Smoke is coming out of the tube"; and after a few seconds he adds, "It's all cleared away."

"What do you suppose is in the upper part of the tube?" "Nothing." "Air."

Mabel lights one of the long splinters, and puts it into the empty glass tube; that is, into the tube filled only with air. "What happens?" "The flame goes out."

Again she lights the splinter, and this time blows out the flame, leaving only a glowing spark. She holds the stick in her hand. "What happens?" "The spark goes out."

A third time the splinter is lighted, and while the spark still glows is thrust into the tube containing the liquid chlorate. O, how the children's eyes sparkle! Every hand is up excepting Joe's and Anson's. "Hal, do you still think there is nothing in the tube but the liquid chlorate?" "O, no! there must be something else in it."

"Bessie, do you still think this something is air?" "It can't be."

"Why not?" "Because the spark went out in the air, and it burst into a blaze in the tube."

"Does the substance itself take fire and burn?" "No, but it makes the wood burn."

"This is the same as saying the substance is not combustible," says the teacher, "but supports combustion. Is every one satisfied that there is something in the tube which is not air?" A general assent is quickly given.

"Now I want you to describe this something," says the teacher. "You can look straight at it and not see it." "You can put your finger in it and not feel it," says Jack, proving the fact as he speaks. "It isn't a solid." "It isn't a liquid."

"Can any one tell me what name is given to a substance which is neither a solid nor a liquid, and which, in this case at least, cannot be seen or felt?" "Gas," says one of the older boys.

Hugh writes on the board, "—— is a gas."

The three forms of matter may be further illustrated by a lump of ice. This is a familiar solid which may be converted by heat into a liquid and gas.

"Arthur?" "You can see through the gas."

"One word for those six words," says the teacher. "Clear." "Transparent."

Hugh writes, "—— is transparent." "It is colorless," says Hugh, and writes it upon the board.

"Once again, what does this gas resemble?" "Common air."

"And how does it differ from air?" "It makes everything burn."

"Do you know that?" "I know it makes wood burn when air does not."

"Say what you *know* to be true, my little boy, rather than what you think may be true. How many would like the name of this something which is now quite familiar to us?" This time every hand is raised excepting Anson's. He does not see any use in studying such things; *he* is never going to be a chemist.

"Oxygen is its name," and therefore Hugh writes oxygen in place of the blanks; while the little ones, delighted with a long word, repeat it glibly in concert. Then the sentences on the board are erased, and each child writes in his note-book what he knows about oxygen.

The next day the teacher hears several of the reports, and afterward tells her pupils some things about this gas that they cannot find out for themselves. How eight-ninths of the water they drink is made of it, and one-fifth of the air they breathe; how half of the outer, rocky portion or crust of our earth is oxygen; how, too, it exists in plants and animals, making up about four-fifths of the weight of the former and three-fourths that of the latter. "It is the most abundant and important single thing we know of," says the teacher.

"I think that's why we took it first," says Anson, who suddenly became interested in oxygen on hearing he was drinking and breathing it, and was partly made of it.

This article, and those which are to follow, may seem too simple to be worthy the attention of teachers, yet they are written in the hope that they may throw a little light upon the problem which deeply concerns us all—How can the primary school-teacher place nature within the reach of her fifty little pupils? It is a more difficult question than the one which the past has asked and answered—How can the specialist bring nature home to his class of adults? To-day there are teachers who fully realize what great demands the present is making upon man's perceptive and reasoning faculties, and who foresee that the future will make far greater. They also recognize the fact that the study of nature is admirably adapted to train these faculties, and to fill the heart of the child with love and reverence. While they long to equip their pupils for the work of a growing age, they have little time for providing themselves with apparatus and specimens. The natural history lessons must therefore be reduced to their simplest form, and the apparatus made inexpensive. With this object in view, these brief sketches of lessons are given.

We are aided in our work by the *Guide for Science Teaching upon Common Minerals and Rocks*, by W. O. Crosby, published by Ginn, Heath & Co., Boston; also, by the little primer, *First Lessons in Minerals*, to which we have already referred.

J. M. ARMS.

In *Primary Teacher*.

"THERE is nothing more frightful," says a German writer, "than for a teacher to know only what his pupils are intended to know."

LORD LYTTON, in his wonderful novel, "The Caxtons," gives voice to the feeling which all sensible people must have, when he says: "A more lying, round-about, puzzle-headed delusion than that by which we confound the clear intellect of truth in our spelling was never concocted by the father of falsehood. How can a system of education flourish that begins by so monstrous a falsehood which the sense of hearing suffices to contradict?"

THE SECOND BIENNIAL CONVENTION OF COUNTY SCHOOL SUPERINTENDENTS.

THE county superintendents of California, in pursuance of the call of State Superintendent Campbell, met in the upper hall of the Young Men's Christian Association building, in San Francisco, December 27th, 1882.

The State Superintendent presided, and called the convention to order. Albert Lyser, editor of the SCHOOL JOURNAL, was elected secretary, and J. W. Linscott, superintendent-elect of Santa Cruz County, assistant secretary.

Supt. Campbell made a few preliminary remarks explanatory of the objects of the meeting, and then in a neat speech introduced his successor in the State superintendency, Prof. W. T. Welcker.

Prof. Welcker expressed his gratification in meeting the superintendents of the State. He thanked Supt. Campbell for affording him the opportunity of meeting them and listening to their deliberations. He favored conservatism in dealing with questions of change in our school law, and believed the legal maxim of "allowing decisions to stand" eminently sound. Of course, where evil existed, it should be remedied; but continued and frequent changes in our school system afford chances for certain demoralization.

Supt. Campbell indorsed the remarks of Prof. Welcker. He said: "What our schools now need most is to be let alone."

At the suggestion of Supt. Moulder of San Francisco, two vice-presidents were elected. Supt. C. S. Smyth of Sonoma and Supt. A. L. Fuller of Alameda were nominated and unanimously chosen.

Supt. Moulder said county superintendents had met for work. He thought it would be well to go through the school law *seriatim*. He moved that course be adopted. Supt. Fuller suggested the roll be called, and amendments offered by each superintendent as his name is called.

A roll of the county superintendents was then made by the secretary. The following superintendents were in attendance during the whole session of the convention, or for a considerable portion of the time:

Alameda, Supt. A. L. Fuller, and Supt.-elect P. M. Fisher.	Nevada, Supt. J. T. Wickes.
Calaveras, Supt. T. G. Peachey.	Solano, Supt. A. W. Sutphen.
Colusa, Supt. Samuel Houchins.	Sonoma, Supt. C. S. Smyth.
Contra Costa, Supt. A. A. Bailey.	Stanislaus, Supt. W. H. Robinson, and Supt.-elect W. S. Chase.
El Dorado, Supt. Chas. E. Markham.	San Joaquin, Supt. C. M. Keniston.
Inyo, Supt. J. W. Symmes.	San Mateo, Supt. G. P. Hartley.
Kern, Supt. F. S. Wallace.	Santa Barbara, Supt. G. E. Thurmond.
Lake, Supt. Mack Mathews.	San Francisco, Supt.-elect A. J. Moulder.
Los Angeles, Supt. John W. Hinton.	Shasta, Supt. Mrs. D. M. Coleman.
Mariposa, Supt. W. D. Egenhoff.	Santa Cruz, Supt.-elect J. W. Linscott.
Merced, Supt. E. T. Dixon.	Sierra, Supt. W. S. Wixon.
Mendocino, Deputy Supt. Price.	San Luis Obispo, Supt. J. F. Beckett.
Monterey, Supt. S. M. Shearer.	Tehama, Supt. Myron Yager.
Marin, A. E. Kellogg.	Tulare, Supt.-elect C. H. Murphy.
Napa, Supt. C. M. Walker, and Supt.-elect J. L. Shearer.	Tuolumne, Supt. J. T. Murnan.

AFTERNOON SESSION.

Supt. Campbell suggested as a question for discussion a subject which is now being agitated in the public press, and likely to become a matter of legislative inquiry; viz.,

"Should the State print its text-books, and should it furnish them free?" The question was divided—the discussion at first being on the question, "Should the State furnish text-books free?"—and then widening to include a discussion of the entire subject as presented by the chair.

On motion the roll was called, and superintendents expressed their opinions in the alphabetical order of the counties represented.

Supt. Fuller opposed furnishing free text-books, for many reasons; e. g., it would throw too great responsibility on teachers in taking care of books; 2nd, destruction of books would be greater than now; 3rd, he thought books should be furnished at cost, and published by the State—not all books, but grammars, readers, spellers.

Supt. Smyth asked what should be done with the Constitution of the State, and its clause in regard to text-books.

The chair said the matter had not been approached in the proper order. He suggested a resolution favoring return to State uniformity. Fuller said it would be well to confine ourselves to the question, "Should the State furnish free text-books?"

Peachey said, while it might be deemed advisable for the State to furnish free books, it could not be done without amending the Constitution. He said that he believed parents did not take sufficient interest in education of their children; this may be because the State already does too much for the children. He gave a humorous description of what was done by the State already for its children. He thinks if the State did a little less—were less munificent—it would be better. He said the districts did not take care of their library books. What is the probability that they would take better care of school text-books?

Markham differed from Peachey. He favored a system that would cheapen text-books. If the State can do this, he favored State publication. He said there were some objections to furnishing free books, but that they should be furnished at cost.

Supt. Wallace of Kern seconded the preceding speaker.

Supt. Hinton of Los Angeles said he favored State uniformity of text-books. He was not prepared, however, to say that he favored either free books or their publication by the State, and sale to children at cost. He thought the present system of writing and publishing school-books was the best possible, for in this way the ability of the best minds of the country is utilized, and every modern appliance is used to bring them to the highest point of perfection. He also thought there would be many chances of fraud with State publication. He thought we have State machinery enough now, and did not favor its extension into details of school government.

Supt. Bailey of Contra Costa agreed with preceding speaker. He thought there would be greater waste. Returning to the subject, he said that he believed it would be almost impossible to amend the Constitution on this ground, so he favored the system now in vogue.

Supt. Egenhoff favored a uniform series, but hardly believed in their publication by the State. If published by the State, they should not be furnished free. He rather favored publication by the State.

Supt. Price favored State uniformity, but could see great difficulty in bringing about a change from the present system. A text-book is a work requiring great originality. He preferred having the books supplied by those who supply the whole Union, rather than by a few persons in this narrow strip of land along the western coast. He did not favor free books at all, as the State already supplies so much that it should do no more. He wished to be placed on record as opposed to the State furnishing books free on any consideration.

Supt. Walker of Napa said he took the same ground as the preceding speaker; i. e., he favored State uniformity, but opposed free text-books either bought by or published by the State. Such a course would lead to a diminution of interest on the part of parents.

Supt. J. T. Wickes of Nevada said he voted in the constitutional convention against

the educational article, because it destroyed State uniformity. He said from his experience as superintendent, he felt he had been right: the present system could not be commended, and should not be perpetuated. He favored the preparation of books by the educators of the Pacific slope. He said the books published here by the State could be furnished at forty per cent. less than present prices.

Supt. Thompson of San Benito differed from the preceding speaker. He thought the chances for getting *good* books were infinitely better when prepared in the open market, and by educators of the whole country.

Supt. Mathews favored the present system. He doubted whether any committee appointed by the California Legislature could select as good a set as we are now using. He favored uniformity, but opposed free books, or those published by the State.

Supt. Shearer favored free text-books.

Supt. Becket favored the furnishing of text-books by the State at cost. He thought more money would be spent on the schools in the future, not less. He favored the purchase by the State in the open market, and then have them furnished to children at cost.

Supt. Hartley of San Mateo said that if the State furnished text-books, the Constitution must be amended. He thought the books would cost the State more than they now do the parents, on account of carelessness, destruction of books, etc. He favored State uniformity, but not to furnish them by State free, or at cost published by the State. This would increase the cost of the entire system, a danger which should be carefully avoided.

Supt. Thurmond of Santa Barbara favored entire uniformity in our whole system, and in that he included not only text-books, but the matter of certificates.

Mrs. D. M. Coleman of Shasta said her views had been fully expressed by Supt. Hinton.

Supt. Wixon also favored a uniform series of text-books, but not publication by the State, or furnishing them free or at cost. He explained many practical difficulties in the way of such a system.

Supt. Smyth of Sonoma said he did not agree with the superintendent of Los Angeles, but he agreed with Mr. Price, who did agree with the gentleman from Los Angeles. He gave illustrations of the practical impossibility of the State publishing books. He thought the State should not trench on the domain of private enterprise. State uniformity is a desirable thing, but not proper that the State should buy the things proper only for private business undertaking. He thought our Constitution an insuperable obstacle to any other than the present system.

Superintendent-elect Chase of Stanislaus favored uniformity, and showed the evils of the present county system. He did not like their publication by the State. He showed that the Legislature would not be the proper body to have control of the subject.

Supt. Campbell said he wished to suggest that the State might purchase plates, etc., of some books, and publish them in its own office. He said he did not wish to commit himself on either one side or the other; he wished simply to offer the above as a suggestion, not as a recommendation.

Supt. Hinton showed that if books published by the State were found bad, they could be changed only with great loss to the people.

Superintendent-elect J. W. Linscott of Santa Cruz said there was growling among the people, and he was glad of it, for all this trouble was owing to the new Constitution, which had been adopted despite the protests of the friends of our schools. He thought the point to discuss first was a change in the Constitution. He favored State uniformity, but not their publication by the State. He thought parents should bear *directly* the cost of the education of their children, and not leave it to indirect taxation.

Supt. Yager of Tehama said he did not favor the Legislature furnishing a whit more than it did now. In New York the pupils furnish even their own stationery, and so they take care of them, and do not waste as they do here.

Supt. Murnan agreed with previous speaker. He thought California is doing enough for its children and their parents now.

Supt. C. H. Murphy of Tulare said he agreed with the superintendent of Santa Cruz. He favored affording the most ample facilities, but opposed strongly any publication or supply from the State of text-books free or at cost. He thought it would result in the formation of monopolies, and in corruption, which now cannot exist. Even to buy plates would be an expense, on account of high price of labor. To *give* text-books to children would not cultivate that sense of responsibility and independence necessary in citizens of a great republic.

Supt. Dixon of Merced agreed with previous speaker. He said the innovation would be no economy. Then the workmanship would not be equal to that produced by competition. His experience with trustees in the matter of library books showed that it would be impracticable to have free books, whether published by the State or not. The education given to the child is enough; let them supply their own books.

Supt. Bailey said that uniformity was generally favored by superintendents, but they should take care that with uniformity we do not go back to the old system, with its days of legislative corruption.

State Superintendent Campbell said he did not believe corruption is a necessary part of public business. He favored the old system of State uniformity. He thought the present system expensive as well as wasteful. State uniformity does not mean change—or precipitate change. Some series of books already adopted in many counties could undoubtedly be used everywhere in the State. He had recommended to the Legislature that when they submitted any constitutional amendments to the people, they include this question of State uniformity. In regard to the State publishing books, he could see arguments on both sides. He saw that in some instances, as Science, etc., there was such great advance constantly going on that changes were necessary constantly, so such books could not be published but by private enterprise. He suggested the appointment of a committee on resolutions, to embody the work of the superintendents' section, for the guidance of the Legislature.

Supt. Smyth moved the chairman appoint a committee of five. Carried.

The convention then adjourned till 10 A. M. Thursday.

THURSDAY, 10 A. M.

The convention was called to order at 10 A. M., State Superintendent Campbell in the chair. On roll-call thirty counties were found represented, either by the superintendent or the superintendent-elect.

The question of salary of superintendents and the amounts paid in the different counties to members of the county board of education came up. The roll was called, and each superintendent reported the rule established by the supervisors in his county.

Mrs. Dr. Sawtelle then, by permission, addressed the superintendents on the advisability and necessity of adopting some text-book on temperance for use in the public schools. She urged the adoption and use of Richardson's *Temperance Hand-Book*.

Supt. Wickes of Nevada thought the schools should do something in the way of training in habits of temperance. He favored the introduction of some such study. The superintendents had no power except to recommend, and this they should do. He moved that it is the sense of this body of superintendents that this book should be recommended for adoption in the schools of the State.

Supt. Dixon offered to amend, the publisher be invited to send a copy to each superintendent to lay it before each county board for their consideration. Carried.

Chairman Campbell announced as a committee on resolutions the following: Supt. Smyth of Sonoma, Hinton of Los Angeles, Hartley of San Mateo, Bailey of Contra Costa, and Yager of Tehama.

The superintendents, on motion, adjourned until 2 P. M.

AFTERNOON SESSION.

At 2 P. M. the convention again convened, the State Superintendent in the chair, and the State Superintendent-elect in prompt and regular attendance on every session.

Supt. Wixon of Sierra brought up the question of definitely fixing the library fund. He was supported by Supt. Markham of El Dorado. After a general discussion, it was decided to continue the present system.

Supt. Price moved that the school year be changed so as to correspond with the calendar year. Remarks were made advocating this change by Supts. Price, Hartley, and in opposition by Supts. Murphy, Dixon, and others. The change was defeated by a vote of eight to fourteen.

Supt. Hinton called the attention to section 1617, in regard to powers and duties of school trustees. This topic gives trustees power to buy and build school-houses. This gives them the right to use the balance on hand each year to build. He thought section 1830 makes proper provision for building already, and section 1617 should be amended by striking out the word "build." He thought this practically compelled the county to build instead of the district itself. He also thought that the provision in this section for repairs should be limited so that districts may not employ cheap teachers, so that they can accumulate funds for building new houses, or building new additions. He would therefore limit the amount for repairs to \$50, and also strike out the word "build" in section 1617. He offered this in the form of a resolution.

Supt. Hinton's resolutions were discussed at length, the entire convention taking part. The resolutions were finally divided into two parts. Resolution 1 was adopted by a vote of twelve to ten. The second resolution was amended by inserting \$100 per year for repairs instead of \$50, and then adopted.

Supt. Wallace brought up section in regard to boundaries of districts. This section, he showed, requires amendment. The subject was discussed, but no action taken.

Supt. Hinton called attention to section 1543, in regard to the lapsing of districts, and the disposal of the property of such lapsed district. No decision was reached on this subject, and the hour being late, the convention adjourned to 9:30 A. M., Friday.

Session called to order at 9:30, Supt. Campbell presiding. Supt. Hinton called attention to sections 1621 and 1622, and moved to amend by inserting after the words "an unexpended balance" the words "of the county moneys." Carried.

Also after the words "any balance" the words "of State and county funds." Carried.

Also, in section 1622, after the words "board of trustees" the words "and city boards of education." Carried.

Supt. Walker moved to amend section 1699 so as to read, "county superintendent."

Supt. Beckett moved that subdivision 12 of section 1521 be amended so as to read, "The county superintendent of schools shall draw his requisition semi-annually in favor of the publishers of such SCHOOL JOURNAL upon the unapportioned State fund." Supts. Hinton and Walker opposed the resolution, Supts. Hartley, Dixon, Thurmond favored. Carried.

Moved and carried that a committee on resolutions be appointed by the chair. Wickes of Nevada, Price of Mendocino, Dixon of Merced, Markham of El Dorado, Chase of Stanislaus, were named as said committee.

Supt. Hinton called attention to section 1770 in reference to incidental expenses. The question being on what fund it should be drawn. It was decided on vote they should be drawn on general fund, with proviso stricken out. Beckett favored the general fund. Smyth said in his county it was furnished from general fund; so also in Tehama County.

Supt. Beckett moved that subdivision 15 of section 1617 be amended by striking out the words "and to transfer," etc., to and including the word "school." Carried.

The question was asked whether there were any county boards who did not grant certificates upon life diplomas, educational diplomas, and normal school diplomas.

Supts. Yager of Tehama, Murphy of Tulare, Thurmond of Santa Barbara, said that their boards did not recognize normal school diplomas.

Moved and carried that when a temporary certificate is issued upon a certificate, the same shall be indorsed upon the certificate upon which the same is issued. On motion, Messrs. Walker, Egenhoff, and Beckett were appointed a committee on revision of blanks.

Supt. Hinton moved that "it be the duty of the board of supervisors, on the recommendation of the county superintendent, to dispose of the property of lapsed districts, and to place the proceeds to the credit of the unapportioned county school fund; and the territory included within such district must be divided by the supervisors among the adjoining districts as the superintendent may recommend." Linscott opposed the motion of Hinton; the latter argued in favor. Hartley seconded Hinton's arguments. Walker favored Linscott's point. Hartley thought the matter should be carefully considered.

Smyth thought some means should be devised to prevent districts from lapsing. Supt. Kellogg of Marin thought if property of lapsed districts could be divided, neighboring districts would be more anxious to take them in. Supt. Wixon thought property of districts should go with territory. Supt. Yager differed from preceding speaker, and supported Hinton's amendment. Supt. Beckett agreed with Yager and Hinton. Property should revert to the people of the county as a whole.

As a substitute, the following was offered: "There should be some disposition by law of the property of lapsed districts." Moved as substitute and carried.

Supt. Beckett submitted the following resolution:

Resolved, That it is the sense of this convention that the Legislature should pass a general salary bill, or county government bill, which shall regulate the salaries of county superintendents, and that such salaries should be sufficiently liberal to enable superintendents to devote their entire time to the prosecution of their official duties.

In regard to this subject, Supt. Thurmond presented the following communication from the Santa Barbara Board of Education:

At a regular meeting of the Board of Education of Santa Barbara County, held at their office December 23rd, 1882, the following preamble and resolutions were unanimously adopted:

Whereas, The interests of the common schools of our State depend in a great measure upon conscientious and intelligent supervision; and, *whereas*, the present means employed in the smaller counties for paying for such supervision is totally inadequate, and if a qualified superintendent is employed, he must attend to the public duties at a great personal sacrifice; Therefore,

Resolved, by the Santa Barbara County Board of Education, that the best interests of the public schools demand that the office of county superintendent be a *salaried* office, the salary for the smallest counties to be not less than \$1,000 per annum.

Resolved, That we appeal to the State Convention of County Superintendents to use their influence with the Legislature to accomplish this end during the coming winter.

T. N. SNOW,

Pres. Board of Education of Santa Barbara Co.

Attest: G. E. THURMOND, Secretary.

Prof. Welcker spoke of the necessity of doing something for the relief of county superintendents. Substitute offered to strike out in section 1552 the words "except when otherwise provided by statute." Carried.

The report of the committee on blanks was offered as follows, and adopted:

We recommend that the blanks for order upon county superintendent be changed so as to read "to the amount of _____ dollars," instead of "for _____ dollars."

We recommend that the blank for order upon county superintendent have printed upon the back a bill form that will meet the ordinary purposes for itemized bills as required by law.

We recommend that section 1597 be printed upon back of blank for election notice.

We recommend that column 4, page 2, of the county superintendent's annual report be inserted in blank for school census report.

We recommend that the column of the census marshal's report calling for the number of births during the year be omitted.

We recommend that the leaves of the trustee order book, the superintendent's requisition book, and the auditor's warrant book be perforated.

We recommend that a blank be prepared for complete report as to the condition of the library, the number of books on hand, the number of books purchased during the term, the number of books lost, etc.

We recommend that the blanks for requisitions and auditor's warrants be printed in single form.

We recommend that the teacher's reports and school register should be made to conform in regard to "number of new pupils entered," as found in abstract of monthly summaries.

C. M. WALKER,
W. D. EGENHOFF,
J. F. BECKETT,
Committee.

Supt. Wixon brought up the question of poll-tax money. He said the poll-tax is not now collected, thereby greatly diminishing the school fund. He called Supt. Welcker's particular attention to this point, and suggested that a change be made in the Constitution so that poll-taxes may go to counties which collect them.

Supt. Welcker asked for a summary of the argument made by Supt. Wixon, and also statistics. It was stated that the statistics are to be found in the report of the State Controller.

Supt. Beckett saw one objection. He thought the schools of the *rural* districts should have the benefit of this money. He thought the matter properly regulated now; the taxes should only be strictly collected.

It was moved that it is the voice of this convention that the Constitution should be amended so that the poll-tax may go into State fund, as suggested by Supt. Wixon. Motion carried.

Supt. Hinton presented a very able and elaborate report from committee on free text-books, as follows :

To the Convention of County School Superintendents.

Your committee to whom was intrusted the duty of formulating the sense of the convention in regard to school text-books, as evinced in the discussion of yesterday on that subject, respectfully report as follows:

Three questions are involved in this discussion:

First.—Should the State furnish the books free?

As to this we decidedly believe *not*, for the reasons—

1. The great waste by pupils which would result. What this would be may be judged by the great waste of the stationery now furnished by the State as compared with similar articles furnished by the parents.

2. The cost of care, distribution, and accounting. The State cannot possibly do this work so cheaply or conveniently to the public as it is now done by retail dealers.

3. This would require the books to be kept with other school property in the school-houses or at the homes of the trustees during vacations. The

books should be accessible to the pupils at all times. There would be great waste and loss of books under the management of the average trustees. This is shown by the present great loss of school library books.

4. The people are willing to buy the necessary school books for the use of their children, and we believe that it is positively better that parents should pay directly, each for himself, so much of the cost of the child's education. Books for indigent children are now provided by the State. We see no reason for buying the books for others which is not an equally good reason for buying their clothes or food. It is a step in the direction of leading shiftless people to expect general support from the State—a step in the direction of communism.

5. The people will bear only a certain amount of taxation for school purposes. We believe it unwise to increase the apparent amount by paying from the public funds any expenses which parents now willingly pay out of their own pockets. All the money that can be raised is needed for the extension of school terms, the providing of better buildings and appliances, and the payment of teachers' wages.

Second.—Should the State furnish the books at cost?

To this we answer no, for the reason that it is practically impossible for the State to determine what the cost of a school book is. The cost of school books to private publishers and dealers includes not only cost of the plates, paper, and binding, but also all sums paid to authors, all sums expended on unprofitable publications, on freights, clerk hire, insurance, losses, in trade—in fact, of all the expenses of their business, together with interest on capital invested, and sufficient additional to replace the first cost of plates before the books become antiquated and unsalable; also of the services of all who necessarily handle the books during their progress to the hands of the pupil. This cost practically cannot be computed, and if it could be, under State management, would certainly make the books more expensive than now. The annual profits on school books to retailers at present in California probably do not exceed \$12,000 or \$15,000. The State certainly cannot distribute the books for this money; and even if there were the possibility of a small saving, it would not justify the State in attacking the trade of the small bookstores, which are themselves great educational influences which ought to be encouraged, and not crippled.

Third.—Should the State publish its own text-books?

As this branch of the subject has been largely discussed of late, we have given it considerable attention.

It has been claimed that the State should publish the reading and other principal text-books used in the public schools. This would probably include Readers, Spellers, Geographies, and Arithmetics. The sale of United States Histories is too small to render it an object; and upon the subject of Grammar there is too much difference of opinion. It may be added that Geographies would also doubtless have to be excluded, as they are peculiarly difficult to prepare and print, and are necessarily subject to continual revision.

For the purpose of investigation, however, we have included these four subjects.

The first question to be considered is the volume of business. It is not claimed that we should get better books by State publication, but that we would save money.

To find out how much we can save, we must first find how much we now pay.

According to the report of the superintendent of schools of San Francisco for 1880, there were enrolled in May of that year the following numbers of pupils in the respective grades: First grade, 875; second grade, 1,447; third

grade, 1,899; fourth grade, 2,857; fifth grade, 3,621; sixth grade, 4,038; seventh grade, 4,548; eighth grade, 9,721.

The cost, at contract retail prices, for all the Readers, Spellers, Geographies, and Arithmetics which would be required in one year by that number of pupils, according to the course of study in the San Francisco schools, if each pupil should buy a new book, would be \$19,069.70. In fact, however, they do not all purchase new books, great numbers of books are handed down from one child to another, or were used by the same child in previous grades. Probably not more than half of the books required would be purchased new in each year. For the purposes of the discussion, however, we assume that one-third of the books only are left over and two-thirds purchased new. This would make the cost of the books, at contract retail prices, \$12,713.14. The sum actually paid to the publishers by the wholesale dealers, for these books, and for which the State could also purchase them if it was desired to distribute them through its own machinery, would be \$8,366.

The total number of census children in the State for 1880 was 213,596; census children in San Francisco, 58,492; number in State, 3.65 times that in the city.

Assuming that the consumption of these books would be the same *per capita* of census children in the State as in the city—which it would not be, for more are used in the city—we have $\$8,366 \times 3.65 = \$30,535.90$ as the net amount which the State could purchase all the Readers, Spellers, Geographies, and Arithmetics required for one year by the pupils at the public schools of the State. The freight on such a quantity of books from the East would be from \$2,500 to \$3,000.

Your committee has not had time to make further estimates. The records of sales of some of the books largely used in the State, taken from the books of the wholesale houses of the city, were shown to your committee, and indicate substantially the same result. Your committee, however, have not had time to verify them, and do not include them in this report. They can doubtless be seen by any person interested, and of course furnish the best and most reliable data on this subject.

From all the information which your committee have been able to gather, however, we feel justified in assuming that all the Readers, Spellers, Geographies, and Arithmetics which would be required in one year for the public schools of this State could be purchased by the State, and laid down in Sacramento or San Francisco, for not to exceed \$40,000. We also believe, from some estimates which we have seen made by responsible printers and binders of San Francisco, that the same books could be manufactured from plates owned by the State for about half that sum.

The question then is, Can the State pay its authors, and manufacture its plates, out of the \$20,000 a year, now probably paid to publishers and transportation companies above actual cost of manufacture, and still probably save enough to justify the experiment?

These figures are so absurdly small, as compared with the popular estimate of the amount paid for these books, and as compared, we may say, with our own estimates when we began this investigation, that we are not inclined to pursue the subject farther. We do not believe the people of the State will desire to change the Constitution for the purpose of allowing the Legislature to engage in any such experiment for the purpose of trying to save such a trifling sum.

But these are the figures, and they seem to indicate just this result. There seems to be paid for these books, to the publishers and transportation companies, about \$40,000. The work of distribution is performed by the wholesale and retail dealers, the former receiving for their services some \$5,000

or \$6,000, and the latter some \$11,000 or \$12,000, in return for which they count, pack, bill, and distribute the books, collect and transmit the money, and pay the losses from bad debts. We do not believe the State could do the same work for three times the money.

As, however, there may be some well-meaning people who are still unconvinced, we shall pursue the subject a little farther.

EXPENSE OF AUTHORSHIP.

The usual compensation of authors of school-books is 10 per cent. on the list price, which is 25 per cent. higher than that assumed above in estimating the amount now received by publishers; and the State ought not to, and unless the universal experience of mankind misleads us, *would* not, seek to deal less liberally with its authors than is the custom of private publishers. On the supposition, therefore, that the annual sale of books would be \$40,000 at net prices, equivalent to \$50,000 at list prices, there would be either an annual payment of \$5,000 to authors, or the immediate payment of such a gross sum as would be its equivalent. This disposes of one-fourth of the proposed saving of \$20,000, except upon the supposition that the State accepts the services of some of the multitude of incompetent men who are unable to secure private publishers of their books, and who will therefore seek to become authors for the State on almost any terms, or succeeds in browbeating some competent man into accepting less than the usual and fair remuneration.

EXPENSE OF PLATES.

School-books, as now manufactured, are models of good printing. The plates must be prepared from fresh, new type, with which the State printing-office must be stocked. The very best compositors and foremen must be employed. But the chief difficulty will be in the illustrations. The school Readers now published by the leading houses are gems of art. The books which as First and Second Readers are now retailed for 25 and 50 cents would, if put up in flaming covers and sold as holiday books, retail for from one to two dollars. They engage the services of the very best artists and the very best engravers in the land. The series of Readers now in use in San Francisco contains two hundred and thirty-five illustrations; the list of artists contains the names of the best artists in America; the work of the engravers is equally creditable; the artistic knowledge and feeling required to originally plan the illustrations before the detailed work is referred to the artists at all is of a very high order, and probably not found attached to any State printing-office in America; the Readers and Geographies of other publishers are equally good; the public taste and educational requirements alike demand the very best effects attainable in this department, and rival publishers continually vie with each other in their efforts to keep pace with this demand.

It will certainly not be proposed that the State of California should prepare text-books for its children inferior to those supplied by private enterprise to the children of other States. Neither public opinion nor the real interests of our schools would permit it. If any books be published by the State, they must be the best books possible. A low estimate for a private publisher to pay to artists and engravers for the two hundred and thirty-five engravings of the series alluded to would be \$60 each, exclusive of the services of the skilled person in charge of the general mechanical and artistic execution. Here would be an investment of some \$15,000 for a single item. If done for the State, it would unquestionably reach \$20,000. If it be said that the State need not make such fine books, or that this care, pains, and expense are not necessary to secure it, it must be replied that the public certainly will require

such books, and will prefer to pay what is necessary to secure them; and that private enterprise can find no way to attain these results *except* by just such pains and expense. A California publishing house, now preparing a series of Readers, finds it necessary and economical to maintain a competent gentleman constantly in the East for the sole purpose of superintending their illustrations. Neither artists nor engravers competent to do such work can be found on this coast, for the reason that there is no demand for their services. The State would be compelled to send East. Work of this kind cannot be done by contract; the result must be patiently worked out at whatever expense by an intelligent, responsible head. And in doing this, even under the very best management, large sums are always wasted in work which is not acceptable when done, and which the publisher who has paid for it finds it necessary to throw away. To what sums under "State" management this would mount can only be conjectured. The time required by a private publishing house for the production of a series of Readers is from two to five years, during all of which time the careful attention of the most competent and experienced men is required, extending to the minutest detail. The State certainly is not likely to get on with less, or less skillful assistance. If it does, the results will be proportionately poor. All these salaries and expenses are to be charged to the account of the "Manufacture of the Plates." To one not familiar with the business they may seem unnecessary, but they are certainly incurred by *all private* publishers, who certainly would *not* incur them if they could be avoided.

The same remarks apply to the preparation of Geographies, and in a less degree to Arithmetics and Spellers.

The capital invested by a private publishing house situated at the East, in the midst of all the best facilities for doing such work, in the manufacture of a series of Readers, Geographies, Arithmetics, and Spellers, would certainly not be less than \$1,000,000.

How much it would cost the State of California, 3,000 miles from the point where the most difficult and expensive part of the work must be done, with the management in the hands of inexperienced men, may be guessed at, but cannot be estimated.

On inquiry, we have learned, that a private publishing house, in preparing a series of school books, *throws more money away in trials and experiments which come to nothing than they put into the actual books as they finally appear.* What would be the experience of the State?

EXPENSE OF MANUFACTURING THE BOOKS—PRINTING AND BINDING.

This work will require peculiar and expensive presses, suitable for printing fine illustrated books, the very best pressmen, and the very best paper. It would also require the equipment of a bindery, and the employment of a force of binders.

If done by contract, it would involve a profit to the contractor, and the risk of bad work. There is not more than one, if there is any, establishment on this coast with facilities for doing the work, and the amount of work is not enough to induce others to prepare themselves, and here would be practically a "monopoly" of the contract, which is what we are all fighting against.

Another point to be considered is the danger of unsatisfactory books after all our efforts. It is a common, and perhaps very natural, error to suppose that almost any well-educated person can prepare a good text-book. On the contrary, there is hardly any more difficult literary task, or one requiring greater judgment, patience, and skill. Let any one attempt to arrange the lessons of a series of Readers, or the examples in a series of Arithmetics, so that each shall easily follow what has been passed, and properly prepare the

pupil for what is to follow, and he will have a slight conception of only one of the difficulties to be encountered. All teachers appreciate this, and can well understand the annoyance, waste of time, and unsatisfactory results from the use of poorly graded, ill-arranged, or unsatisfactory text-books. It is not likely that any school board would agree, in advance of their publication, to use the books of any private publisher, no matter how honest or how capable; and yet an able man who thoroughly understands his business is certainly much more likely to secure good authors and have the books properly prepared than the inexperienced agents of any State, appointed, as they certainly would be, by political influence. Yet it must not be forgotten that the books prepared by the State must be used, at least for a time, whether good or bad. When new, like all other new school-books, they are certain to contain many errors and omissions, and to require correction, modification, and new editions; and the people must bear the expense, and the party in power endure the scandal. If found finally bad, and, in the course of time in any event, there will be a desire to supersede them by newer books, which will involve throwing away the old plates, and the paying full prices for the new books, in which case there would be no convenient nominal "exchange prices" to be paid in exchange for the old books.

It must also not be forgotten that the proposed measure will involve the immediate general change of *all the books now in use*—most of them among the latest and best books in the market, and just recently adopted and bought by the people—a proceeding which, its seems to us, would be found not only unwise, but unpopular.

In consideration, therefore, of all the above facts, we are constrained to advise against the State undertaking to print, publish, or "provide" any of the school text-books.

C. S. SMYTH, Chairman.
MYRON YAGER.
A. A. BAILEY.
G. P. HARTLEY.
J. W. HINTON, Secretary.

Fuller moved it lay on the table until afternoon session. Dixon moved its adoption as read. Carried.

On motion, the question of forming new districts, and of apportioning the money due the same, was referred to a committee, consisting of Supts. Symmes, Wallace, and Fuller.

The committee presented the following report :

Your committee on formation of new districts report as follows:

That sections 1580 and 1582 should be embodied in one section, to read as follows:

No new district formed by subdivision of an old one is entitled to any share of the public moneys belonging to the old district until the beginning of the new school year, at which time the superintendent of schools shall, after payment of all indebtedness of the old district, divide the money to the credit of the old district, in proportion to the number of census children in each district. When a new district is formed from more than one district, the money on hand to the credit of the said districts, after all indebtedness is paid, shall be divided in proportion to the census children taken from the old districts. The proportion of the money obtained on the daily average attendance in said old district or districts shall be divided according to the number of census children taken therefrom.

Section 1581. A new district formed by the subdivision of an old one

shall not be required to commence school until the beginning of the succeeding year.

J. W. SYMMES.
A. L. FULLER.
F. S. WALLACE.

The committee on resolutions then brought in the following report :

Your committee on resolutions would respectfully submit the following:

1st. That we believe that the law obligating our attendance at these biennial conventions has in view the interests of the schools at large, and may be made productive of good results, especially if well attended. We regret, however, that we have had but a partial attendance, but feel satisfied with the work done under the circumstances, and trust that our recommendations will be favorably considered by the ensuing State Legislature.

2nd. We, as representatives of the schools of the several counties of the State, most heartily indorse the administration of our State Superintendent, F. M. Campbell, and tender him our sincere thanks for his untiring energy and labor in behalf of the cause of education in this State, the influence of which will be permanent. And we cordially thank him for his uniform personal and official courtesies.

3rd. We feel confident that our in-coming State Superintendent, Prof. Welcker, by reason of his high standing as an educator, will prove worthy of the great trust reposed in him, and we pledge to him our hearty co-operation.

4th. We return to our official duties with a renewed determination to do all that we can to advance the interests of the schools within our respective jurisdictions, inspired by the thought that in the public-school system we are united in a grand chain that extends not only through this State, but through the entire Union of States, broad as the national purpose, and as far-reaching, we trust, as the prophetic welfare of mankind.

5th. We recommend that our next superintendents' convention be held in the city of San Francisco in the third week of December, believing that this date would be most convenient to all interested.

6th. We tender our thanks to the press of San Francisco for publishing our daily proceedings; also to Prof. Lyser for his services as secretary, and the general interest he has taken in this convention.

J. T. WICKES,
E. T. DIXON,
CHARLES E. MARKHAM,
HARRISON PRICE,
W. S. CHASE.

Committee on Resolutions.

After the reading of the resolutions, an unforeseen but very pleasant diversion was created by Supt. C. S. Smyth, who stepped forward, and in a few brief but eloquent sentences presented to the retiring State Superintendent an elegant gold-headed cane, as a slight tribute of respect and appreciation from the county superintendents of California. Supt. Campbell responded in a feeling manner.

Prof. Welcker then made a few closing remarks. He said that he felt like expressing his gratitude for the promise of support from county superintendents of the State. He had wished to ask for this thing; was glad it had been so freely offered. He hoped that when his term was finished they would feel still more like supporting him. He expressed great satisfaction at the pleasant surprise to Supt. Campbell. He complimented the superintendents on their readiness and industry. He very cordially returned thanks for promises of support and their kind reception, and made them like pledge in returns.

The convention then adjourned *sine die*.

COUNTY SUPERINTENDENTS OF CALIFORNIA.

TO SERVE FOR FOUR YEARS FROM JANUARY, 1883.

County.	Name.	Post-office-Address.
Alameda.....	P. M. Fisher.....	Washington Corners.
Alpine.....	Mrs. Anna M. Arnott.....	Markleeville.
Amador.....	J. F. Chandler.....	Sutter Creek.
Butte.....	D. W. Braddock.....	Oroville.
Contra Costa.....	A. A. Bailey *.....	Martinez.
Calaveras.....	C. R. Beal.....	San Andreas.
Colusa.....	J. L. Wilson.....	Colusa.
Del Norte.....	W. H. Jeter.....	Crescent City.
El Dorado.....	Charles E. Markham *.....	Placerville.
Fresno.....	B. A. Hawkins.....	Fresno City.
Humboldt.....	N. S. Phelps.....	Ferndale.
Inyo.....	Charles E. Groves.....	Independence.
Kern.....	A. B. Macpherson.....	Bakersfield.
Lake.....	Mack Mathews †.....	Lakeport.
Lassen.....	E. A. Williams.....	Susanville.
Los Angeles.....	J. W. Hinton *.....	Los Angeles.
Marin.....	A. E. Kellogg.....	San Rafael.
Mariposa.....	W. D. Egenhoff †.....	Hornitos.
Mendocino.....	John C. Ruddock §.....	Ukiah.
Merced.....	E. T. Dixon *.....	Merced.
Modoc.....	Mrs. Alice Welch.....	Alturas.
Mono.....	Miss Naomi Angell.....	Bodie.
Monterey.....	M. J. Smeltzer.....	Salinas City.
Napa.....	J. L. Shearer.....	Napa City.
Nevada.....	A. J. Tiffany.....	French Corral.
Placer.....	O. F. Seavey *.....	Auburn.
Plumas.....	George E. Houghton.....	Quincy.
Sacramento.....	C. E. Bishop *.....	Sacramento.
San Bernardino.....	H. C. Brooke.....	San Bernardino.
San Benito.....	J. N. Thompson *.....	Hollister.
San Diego.....	R. D. Butler.....	San Diego.
San Francisco.....	Andrew J. Moulder.....	San Francisco.
San Joaquin.....	S. A. Solinger.....	Stockton.
San Luis Obispo.....	J. M. Felts.....	San Luis Obispo.
San Mateo.....	G. P. Hartley †.....	Redwood City.
Santa Barbara.....	G. E. Thurmond †.....	Carpenteria.
Santa Clara.....	L. J. Chipman †.....	San Jose.
San Cruz.....	J. W. Linscott.....	Watsonville.
Shasta.....	Mrs. D. M. Coleman †.....	Shasta.
Sierra.....	J. S. Wixon †.....	Downieville.
Siskiyou.....	H. A. Morse †.....	Yreka.
Solano.....	C. B. Webster.....	Fairfield.
Sonoma.....	C. S. Smyth *.....	Santa Rosa.
Stanislaus.....	W. S. Chase.....	Modesto.
Sutter.....	M. C. Clark.....	Yuba City.
Tehama.....	Myron Yager *.....	Red Bluff.
Trinity.....	H. R. Givens.....	Weaverville.
Tulare.....	C. H. Murphy.....	Visalia.
Tuolumne.....	John T. Murnan *.....	Sonora.
Ventura.....	C. T. Meredith.....	San Buenaventura.
Yolo.....	J. W. Goin *.....	Woodland.
Yuba.....	A. F. Crane.....	Marysville.

NOTE.—We republish the list of County Superintendents, as our table of last month had several errors. The names and residence above given are as officially reported to us.

* Re-elected.

† Third term.

‡ Fourth term.

§ Has already served two terms.

EDITORIAL DEPARTMENT.

- WHAT DO THE CHILDREN READ?

FROM our early youth we have heard that "a little learning is a dangerous thing." The truthfulness of this old saw is forcibly and sadly illustrated at the present day in observing the result of simply teaching a child to read. The ability to obtain ideas from a printed page is in itself a delightful occupation. It is all the more delightful when we consider that this ability is usually acquired at a time when the child has little or no fund of thought upon which to draw for the purpose of whiling away his leisure hours, and also that it is at a time when the mind of the child is exceedingly active, and ready for anything which promises excitement. As soon as a child learns to read, he has a new world opened to him, and the question at once occurs: From all this material scattered so profusely on every side, what shall I read? This question, we repeat, is suggested at once, and it must be answered. Leave the child to himself, and his natural instincts, his love of adventure and excitement, and his unformed taste readily lead him to choose that reading which satisfies his nature. As the mind grows like that upon which it feeds, but little time elapses before his imagination is so excited by the unreal, his judgment so warped by the false, and his taste so depraved by the unnatural, that he becomes unfitted for the dull, prosy affairs of actual life, and longs for those scenes where freedom runs riot and all law and restraint are unknown.

As we walk the streets of our cities and villages, and observe how profusely a vile and debasing literature is scattered broadcast over the land, how cheap it is, what pains are taken to advertise it and bring it to the attention of our boys and girls, how attractive it is made, and how well calculated to inflame the youthful imagination—we shudder as we contemplate the future, unless some powerful counteracting influence can be brought to bear against it. The influence of a certain class of publications is so pernicious, so destructive of youthful morality, and ultimately fraught with so great danger to the State, that we are firmly of the opinion that a law should be passed by our present Legislature licensing and regulating the sale of books, newspapers, and magazines. Any publication intended for children to read which makes a criminal a hero, which exalts lying and theft and murder, and ridicules all the nobler sentiments of humanity, should be, in the eye of the law, a disturber of the peace and prosperity of society, and be treated accordingly.

We say the strong arm of the law should intervene, and rescue the youth of the land from the debasing influence of this vile literature; but we have small hope that any effort will be made for this purpose. Publishers of this class of newspapers and books will continue to scatter their poison broadcast, and grow rich in doing it; many of the boys and girls of our land will eagerly devour it, and as a consequence be induced to live lawless and irresponsible lives, and in process of time become inmates of our jails and penitentiaries. All this we fear will continue to go on for years to come, as it has for years in the past, before the general public will become fully alive to the magnitude of the evil.

We introduce this subject at the present time, not for the purpose of advocating a stringent law which should regulate the publication and sale of the literature in question, but for the purpose of directing public attention to its gravity and seriousness, and offering a word of suggestion to our teachers.

The danger would be largely averted if children could be kept longer under the influence of the school. They would then not only learn to read, but would acquire a taste for good reading. As their minds were cultivated, and they became possessed of broader views of life and the social relations, and so were better able to distinguish the real from the sham, they would turn away in disgust from that which so charms the ignorant and those possessing an uncultivated taste. More schools and more schooling should be the war-cry of those who wish to wage battle against this demon who is casting such a terrible blight over so many innocent lives.

To the teachers we would say: You can do something toward averting the evil by making use of every opportunity for creating a taste for pure and healthful literature. If the opportunity does not offer itself, make it. As far as possible, know what every one of your pupils reads. Frequently you will find it necessary to convince the parents that their children are receiving injury from the papers they permit them to read. Unlettered fathers and mothers cannot realize the danger which threatens their offspring from reading papers which they say were purchased at a reputable bookstore. Point out the danger, and substitute something better if possible. Be sure that you fully appreciate the importance of the question, and your sense of right and duty will readily suggest ways and means to do all that lies within your power.

MEETING OF THE STATE ASSOCIATION OF TEACHERS.

THE session of the State Association, held in this city on December 27th, 28th, 29th, was one of the most interesting and valuable ever held in this State. The attendance of representative teachers from different sections of the State was larger than at any previous session; citizens of San Francisco attended, some taking part in the proceedings, and the press reports were unusually full.

An accurate and complete report of the meeting, together with a number of the papers read, will appear in our February issue.

THE NEW YEAR.

AT the added mile-stone of another new year, we indulge in a retrospect of work accomplished, and plan with new hope the labor of the future.

The conduct of an educational periodical on the Pacific coast is no easy task. How well the JOURNAL has acquitted itself, how fully it has subserved the truest interests of the children for whom our system was established, the six volumes before us, the warm friendship and hearty indorsement of every representative educator on the coast—all bear ample witness. They show that our journal has been conducted for the sake of the cause, and for no purely selfish ends. They show that when political feeling has run high, when men were divided on questions of public policy, the JOURNAL has never permitted the breath of partizanship or the touch of sectarianism to approach the great questions of public school management.

Where we have permitted ourselves to recommend men for school offices, their political faith has never been questioned; fitness, morality, and the public weal—these and nothing more—were always our tests, and the measure of our advocacy.

These past performances are our best promises for the future. We believe we see that future even brighter, more useful, more important in the general school economy of the coast than the past.

With the New-Year's greeting, we again invite our friends—the friends of the cause of universal education—to co-operate with us; to give us the encouragement of tongue and pen; to enable us to bring the only leveler of rank and wealth—education—to the lowliest home in our Commonwealth.

TIME OF ISSUE.

N EARLY all of the department work of the JOURNAL has been omitted this month to enable us to catch up to the time fixed for the regular issue. We think we may now safely promise the issue of the JOURNAL promptly on the 10th of each month. An excellent February number is now in course of preparation.

OFFICIAL DEPARTMENT.

SUPERINTENDENT WILLIAM T. WELCKER, EDITOR.

DEPARTMENT OF PUBLIC INSTRUCTION,
SACRAMENTO, Jan. 11th, 1883.

I have been requested to write a salutatory as editor of the Official Department of the SCHOOL JOURNAL. I do not expect to fill the role of editor in the ordinary sense of that term, but gladly will avail myself of the opportunity afforded by the Official Department to communicate at once with large numbers of the teachers and school officials of the State. The necessity of studying the details of routine matters in an office upon which I have entered within a day or so, and the extraordinary pressure of business, and the momentary interruptions incident to the assembling of the Legislature, and the installation of a new administration, will, I trust, be my excuse for the brevity of this article.

Although not penning a salutatory, I do nevertheless gladly seize this occasion to send greetings and friendly salutations to all connected with the schools of California. I trust that I may receive during my term of office the support and co-operation of the officers and teachers; and on my part it will be my pride and pleasure to do all within my power for the welfare of all connected with the schools, and for the advancement of the cause of education.

The PACIFIC SCHOOL JOURNAL will continue to be the organ of the Department of Public Instruction until a change shall be ordered by the State Board of Education.

WM. T. WELCKER.

PREVIOUSLY ANSWERED. *—"1st. Is it fair for a teacher in an academy that trains teachers for examination to act as a member of a county board of examination? Is there not room for suspicions of fraud in favor of his own school and pupils?

"2nd. If the census enumeration of a district entitles it to public money for several teachers, would it be lawful for the trustees to employ less teachers than the law provides, and appropriate the money to other uses?"

You have evidently not been a very careful reader of the Official Department of the *SCHOOL JOURNAL*. In that department of the *JOURNAL* for the month of October, 1881, you will find your first question quite fully and plainly answered. In that article I give my reasons for objecting to those who prepare students for teachers' examinations serving on the boards before whom those students must appear, and to members of an examining board preparing pupils for these examinations. The article had the effect at the time of causing resignations from several county boards.

In the Official Department of the *JOURNAL* for May, 1882, you will find an answer to your second question as follows: "The law does not compel trustees to employ more teachers than are necessary to do well the work of the district, no matter for how many teachers money is apportioned. The word 'teacher' as used in section 1858 is merely for convenience, and means simply 'seventy census children.'"

EDUCATIONAL INTELLIGENCE.

SANTA CLARA COUNTY.—A correspondent writing from San Jose describes the work of Supt. James G. Kennedy since his election to the office of City Superintendent of Schools as follows:

The principal points of improvement are as follows: The amount of work in the course of study was reduced about one-half. In the first five years of school life nearly all the technical work he threw out and substituted therefor a well-defined practical course. These changes have taken place principally in the language and number work. Supt. Kennedy's idea is, "If you want to learn to write, write. If you want to learn to walk, walk. You never can learn the art of penmanship by sitting at your table and listening to some one tell how to proceed. You must practice. So in composing, if you want to do it well, you must compose, and keep at it until you can do it." This idea has been kept in view, and the language work so arranged that for the first five years of school life the pupil

devotes his attention principally to copying and composing. In other words, Mr. Kennedy says he is going to see if he can get pupils of 14 years of age able to write neat, intelligible letters and compositions. The test of examinations is, Can you write the letter or composition expressing your thoughts in sentences, using the capital letters and punctuation marks properly, and spell all the words correctly?

In the lower grades the test in numbers is accuracy and rapidity. Can you perform the operations neatly, accurately, and rapidly? He cares nothing for analysis in the lower grades. The reason will come soon enough without pushing it. A course has been prepared in drawing and writing that he believes will enable pupils to handle the pen and the pencil with accuracy and beauty.

A course in music, morals and manners and oral instruction has been prepared. In oral instruction the course includes lessons on familiar objects; color; form; ma-

* This matter was furnished by Supt. Campbell too late for insertion in our December number. As it is of general interest, it appears now. [ED. *JOURNAL*.]

terial for and manufacture of clothing, fuel, and food; building material, philosophy and physiology.

The entire department is in excellent working order; teachers and pupils all laboring harmoniously towards the common goal.

STATE OF NEVADA.—Prof. A. Lyser was the instructor of the "State Teachers' Institute" held at Reno, November 22nd, 23rd, 24th, and 25th. He did most excellent work, and made a host of friends among the teachers and friends of the public schools on this State.*

C. S. Young is the State Supt. of Public Instruction-elect.

The County Superintendents-elect are T. B. Gray, Storey; John G. Young, Lyon; W. R. Jenvey, Washoe; Charles L. Deady, Nye; C. W. Hirschcliffe, Lander; G. B. Hinkle, Esmeralda; C. B. Wiseman, Elko; B. F. Foster, Ormsby; M. A. Douthett, Eureka; C. Chenoweth, Humboldt; J. M. Allen, Churchill.

There are 432 pupils in the Reno public schools, and ten teachers. Prof. Nelson Carr, the principal, sent in his resignation to the Board December 2nd, which was accepted. His successor has not been appointed. On Thanksgiving Day, Prof. Carr was married to Miss Annie M. Henry, of Silver City.

There are 700 pupils in the Gold Hill public schools. The Board has declared a vacation for the months of January and Feb'y.

State Superintendent D. R. Sessions is now visiting the schools of Eastern Nevada. He will continue as editor-in-chief of the *Eureka Sentinel*, in the absence of Congressman Cassidy.

Hon. W. C. Dovey, principal of the Silver City schools, is a candidate for speaker of the Assembly.

Principal F. N. Stone reports an unusually large attendance at the State University. An effort will be made in the coming Legislature to have the University moved from Elko to Reno.

* [This notice, it is hardly necessary to say, is published as sent by the Nevada editor. —EDITOR JOURNAL.]

SOLANO COUNTY.—Prof. Frank A. Pedlar, late Republican candidate for Secretary of State, has assumed the principalship of the Dixon schools, with Misses Emma

Stuart, Carrie Apperson, and Alice Merrill as assistants.

PLACER COUNTY.—L. F. Coburn has resigned the principalship of the Dutch Flat school, and has gone to Jackson, Amador County, where he will begin the practice of law. Mr. H. H. Richmond of Auburn has been engaged to teach the school.

COLUSA COUNTY.—Prof. E. T. Crane, who assumed the principalship of the Colusa schools in September, is succeeding admirably. Mr. Crane was one of Sonoma's best teachers, and a favorite in Santa Rosa, where he taught for a number of years. In his efforts to put the Colusa schools in the first rank, he is ably seconded by G. L. Cutler, Misses Burns and Lagenour, and Mesdames Miller, Drake, and Heitman. There are 306 pupils enrolled, with an excellent average attendance.

E. Roberts is teaching the Prairie school.

Supt. Houchins, whose term expired on the 1st of January, has accepted a lucrative position in Los Angeles County. Mr. Houchins has been superintendent of this county for the past seven years, and has discharged his duties with a faithfulness to the interests of the county and the schools never exceeded by any officer. The best wishes of a host of warm friends go with him to his new field of labor.

At the last teachers' examination there were sixteen applicants for certificates. Only six succeeded in passing. Miss Mary F. France received a first grade, and Misses Dora Sherer, Geogina Eidenmuller, and Messrs. W. B. Cutler, U. W. Brown, and Henry G. Burr, each a second grade.

Hallie Bradshaw is principal of the Bridgeport schools.

EL DORADO COUNTY.—At the recent examination, the following were granted second-grade certificates: Lillian Kelly, Jennie Bryson, James Hodge, Tillie O'Donnell, Alice E. Dater, Annie Arvidson, Minnie Grover, Emily Endriss, Sarah Darglington.

SIERRA COUNTY.—O. E. Mack is principal of the Forest City schools.

Miss Josephine Lefever is teaching the Minnesota school, and is giving excellent satisfaction.

THE PUPILS' CORNER.

THIS department, which will consist of new, and in many cases original, declamations, poems, dialogues, music, and games, suitable for Friday afternoon exercises, will be under the editorial charge of MRS. ALICE LYSER. Teachers who have matter for the department, or suggestions in regard to it, are solicited to send communications to her address at this office.

SELECT READING.

THE DISCOVERY.

A WAY in the heart of ages,
When men seemed to spring up,
full-grown,

When poets and prophets and sages
Seemed to fill the whole world alone.

There could be no room for the children.
So ages, like premature men,
Have lost all the brightness of childhood,
And never have found it again.

The canvas and marble have told us
Of beauty and thought undefiled;
But the angel was seen in the marble,
Before it was known in the child.

And Angelo rivaled a Raphael,
And gave such an impulse to art,
That unnumbered Pygmalion statues
Have lacked only one thing—a heart.

Galileo, with foresight prophetic,
Looked out from his prison on earth,
And called, with a voice not yet silent,
A myriad new worlds to birth.

A Kepler, with wonderful vision,
Beyond his own fellows and time,

Starts the earth on its journey of motion
Set to its own music and rhyme.

A Franklin, with wondrous invention,
The banner of thought has unfurled;
A Morse caught the fire chain electric,
And with it encircled the world.

A Field, with the strength of his cable,
United two nations in one;
And each day, as it passes, but shows us
The onward work only begun.

An Agassiz, leader in science,
Now asleep on his own mother's breast
Has this epitaph, evermore blessed,
Of all things, *he loved children best.*

And I think, of all words of the Master,
Who taught in the Galilee,
These have touched our humanity closest—
“Let the little ones come unto me!”

So I feel that the poor German peasant,
The “daft man” at whom people smiled,
Made the greatest of all known discoveries,
The way to the soul of a child.

Kindergarten Magazine.

THINGS STUDENTS SHOULD KNOW.

THE following is the shortest and most accurate method of computing interest known, and it is worth preserving. Multiply the principal by number of days, and divide—

If at 5 per cent., by 7,200.

If at 6 per cent., by 6,000.

If at 7 per cent., by 5,143.

If at 8 per cent., by 4,500.

If at 9 per cent., by 4,000.

If at 10 per cent., by 3,600.

If at 11 per cent., by 3,273.

If at 12 per cent., by 3,000.

If at 13 per cent., by 2,760.

If at 14 per cent., by 2,571.

If at 15 per cent., by 2,400.

If at 16 per cent., by 2,250.



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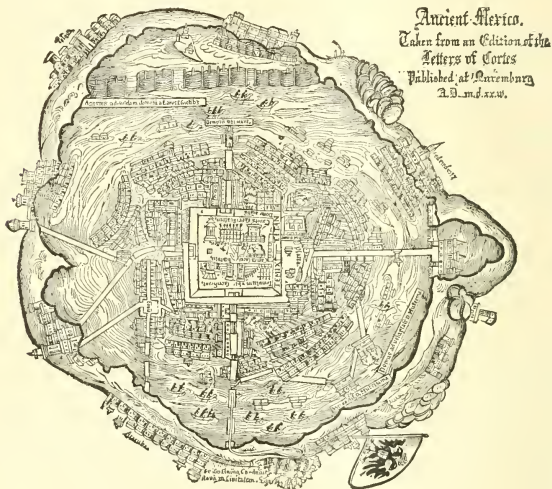
THE MEETING OF CORTÉS WITH MONTEZUMA.

IT was in the morning of the 8th of November, 1519, that the Spaniards mustered for the entry into Mexico. Not far from Iztapalapan they came upon the longest causeway, two leagues in extent, which, with the exception of a short angle near the shore, led in a straight line northward to the heart of the city. They passed several towns, some on the shore, others touching the causeway, and supported to a great extent by the manufacture of salt from the lake water. The causeway had been reserved for the passage of the troops, out of deference to the desire manifested to keep the natives at a respectful distance, but both sides were lined with canoes bearing an eager crowd of sight-seers. About half a league from the city the causeway formed a junction with the road from Xochimilco and Coyehuacan, at a spot called Acachinanco, where a stout battlemented wall fully ten feet in height, and surmounted by two towers, guarded the two gates for entry and exit.

Entering here the Spaniards were met by a procession of over one thousand representative people from the capital, richly arrayed in embroidered robes, and with jewelry of pendant stone and gold. These passed before the visitors in a file, touching the ground with their hand, and carrying it to the lip in token of reverence. This ceremony occupied an hour, after which the march was resumed. At the junction of the causeway with the main avenue of the city was a wooden bridge ten paces wide, easily removable, inside of

which Cortés halted to await the emperor, then approaching. On either side of the street, closely along by the houses, came processions of nobles, headed by lords and court dignitaries, all of whom marched with bare feet and bowed heads. This humility was owing to the presence of the emperor, who in almost solitary grandeur kept the center of the road, borne in a richly adorned litter on the shoulders of his favorite courtiers, and followed by a few princes and leading officials. Three dignitaries preceded him, one of whom bore aloft three wands, signifying the approach of the imperial head of the tripartite alliance, so that all persons in sight might lower their heads in humble reverence till he had passed.

On nearing the Spaniards, Montezuma stepped from the litter, supported



on either side by King Cacama and Cuitlahuatzin, his nephew and brother, and followed by the king of Tlacopan and other princes. Four prominent caciques held over his head a canopy profusely covered with green feathers set with gold and silver and precious stones, both fixed and pendant, and before them attendants swept the road and spread carpets, so that the imperial feet might not be soiled. The monarch and his supporters were similarly dressed in blue *tilmattis*, which, bordered with gold and richly embroidered and bejeweled, hung in loose folds from the neck, where they were secured by a knot. On their heads were mitered crowns of gold with *quetzal* plumes, and sandals with golden soles adorned their feet, fastenings embossed with gold and precious stones.

Montezuma was about forty years of age, of good stature, with a thin though well-proportioned body, somewhat fairer than the average hue of his

dusky race. The rather long face, with its fine eyes, bore an expression of majestic gravity, tinged with a certain benignity which at times deepened into tenderness. Round it fell the hair in a straight fringe covering the ears, and met by a slight growth of black beard.

With a step full of dignity he advanced toward Cortés, who had dismounted to meet him. As they saluted, Montezuma tendered a bouquet which he had brought in token of welcome, while the Spaniard took from his own person and placed round the neck of the emperor a showy necklace of glass, in form of pearls, diamonds, and iridescent balls, strung upon gold cords and scented with musk. With these baubles, which were as false as the assurances of friendship accompanying them, the great monarch deigned to be pleased, for if every piece of glass had been a diamond, they would have possessed no greater value in his eyes. As a further expression of his good will, Cortés offered to embrace the monarch, but was restrained by the two princes, who regarded this as too great a familiarity with so sacred a person. The highest representative of western power and grandeur, whose fame had rung in the ears of the Spaniards since they landed at Vera Cruz, thus met the daring adventurer who, with his military skill and artful speech, had arrogated to himself the position of a demi-god.

After an interchange of friendly assurances, the emperor returned to the city, leaving Cuiclahuatzin to escort the general. The procession of nobles now filed by to tender their respects, whereupon the march was resumed to the sound of drums and wind instruments. At the head were scouts on horseback, followed by the cavalry under Cortés, who had by his side two large greyhounds; then came the infantry, with the artillery and baggage in the center; and last, the allies. The streets, which had been deserted by the people out of deference to the emperor, and to the requirements of his procession, were now alive with lookers-on, particularly in the entrances to the alleys, in the windows, and on the roofs.

At the plaza, wherein rose the great pyramidal temple surrounded on all sides by palatial edifices, the procession turned to the right, and Cortés was led up the steps of an extensive range of buildings, known as the Axayacatl palace, which faced the eastern side of the temple inclosure. Here Montezuma appeared, and through a court-yard shaded by colored awnings, and cooled by a playing fountain, he conducted him by the hand into a large hall. An attendant came forward with a basket of flowers, wherein lay "two necklaces made of the shell of a species of red crawfish," so they said, and "much esteemed by the natives, from each of which hung eight crawfish of gold wrought with great perfection, and nearly as large as the span of a hand." These the emperor placed round the neck of the general, and presented at the same time wreaths to the officers. Seating him upon a gilt and bejeweled dais, he announced that everything was at his disposal; every want would be attended to. Then with delicate courtesy he retired, so that the Spaniards might refresh themselves and arrange their quarters.

The building contained several courts, surrounded by apartments, matted and furnished with low tables and *icpalli* stools. Everything about the place

was neat and of a dazzling whiteness, relieved by green branches and festoons. The finer rooms were provided with cotton tapestry, and adorned with figures in stucco and color, and with feather and other ornaments set with gold and silver fastenings. Here and there were vases with smoldering incense diffusing sweet perfume. So large was the place that even the allies found room. The halls for the soldiers, accommodating one hundred and fifty men each, were provided with superior beds of mats, with cotton cushions and coverlets, and even with canopies. Cortés was glad to find the building protected by strong walls and turrets; and after arranging the men according to their corps, he ordered the guns to be planted and the sentinels posted, issuing also instructions for the considerate treatment of the natives, and for intercourse generally. Meanwhile the servants had spread a dinner, which Bernal Diaz describes as sumptuous.

In the afternoon Montezuma reappeared with a large suite. Seating himself beside Cortés, he expressed his delight at meeting such valiant men, whose fame and deeds had already aroused his interest during their visit in the two preceding years at Potonchan and Chalchiuhcucan. If he had sought to prevent their entry into the capital, it was solely because his subjects feared them with their animals and thunder; for rumors had described them as voracious beings, who devoured at one meal what sufficed for ten times the number of natives, who thirsted for treasures, and who came only to tyrannize. He now saw that they were mortals, although braver and mightier than his own race, that the animals were large deer, and that the caged lightning was an exaggeration. He related the Quetzalcoatl myth, and expressed his belief that they were the predicted race, and their king the rightful ruler of the land. "Hence be assured," said he, "that we shall obey you, and hold you as lord lieutenant of the great king, and this without fail or deceit. You may command in all my empire as you please, and shall be obeyed. All that we possess is at your disposal."

Cortés expressed himself as overwhelmed with these kind offers, and with the many favors already received, and hastened to assure the emperor that they were not misplaced. He and his men came indeed from the direction of the rising sun; and their king, the mightiest in the world, and the ruler of many great princes, was the one he supposed. Hearing of the grandeur of the Mexican monarch, their master had sent the former captains, brethren of theirs, to examine the route, and to prepare the way for the present commission. He had come to offer him the friendship of their great king, who wished in no wise to interfere with his authority, but rather that his envoys should serve him and teach the true faith.

The reference to Montezuma's grandeur led the emperor evidently to suppose that the rumors concerning him current in the outlying provinces might have reached the ears of the Spanish king, for he now alluded to the tales which raised him to a divine being inhabiting palaces of gold, silver, and precious stones. "You see," he added, with a sad smile wherein seemed to linger regrets arising from his departing glory, "that my houses are merely of stone and earth; and behold my body," he said, turning aside his vestment,

"it is but of flesh and bone, like yours and others. You see how they have deceived you. True, I possess some gold trinkets left me by my forefathers; but all that I have is yours whenever you may desire it."

Cortés's eyes sparkled with satisfaction as he expressed his thanks. He had heard of Montezuma's wealth and power, and had not been deceived in the expectation, for a more magnificent prince he had not met during his entire journey. Such fine words must be rewarded. At a sign the attendants came forward with a rich collection of gold, silver, and feather ornaments, and five thousand to six thousand pieces of cloth, most fine in texture and embroidery. Being asked what relationship the men bore to one another, Cortés said that all were brothers, friends, and companions, with the exception of a few servants.

Montezuma afterward elicited from the interpreters who the officers and gentlemen were, and in conferring favors he sent them more valuable presents through the mayordomo, while the rest obtained inferior gifts by the hand of servants. At his departure from the Spanish quarters, the soldiers with redoubled alacrity fell into line to salute a prince who had impressed them both with his gentle breeding and his generosity, and the artillery thundered forth a salvo, partly to demonstrate that the caged lightning was a fearful reality.

The following forenoon Cortés sent to announce that he would make a return visit, and several officers came to escort him. Arrayed in his finest attire, with Alvarado, Velazquez de Leon, Ordaz, Sandoval, and five soldiers, he proceeded to the residence of Montezuma, in the new palace as it has been called, situated in the south-east corner of the great temple plaza. If they had admired the palace forming their own quarter, how much more charmed were they with this, "which has not its equal in Spain," exclaims Cortés.

The exterior presented an irregular pile of low buildings of *tetzonlli* raised upon high foundations, and communicating with the square by twenty doors, over which were sculptured the coat of arms of the kings of Mexico. The buildings were so arranged as to inclose three public squares, and contained an immense number of rooms and halls; one of them large enough to hold three thousand men, it is said. Several suites were reserved for royal visitors, envoys and courtiers, while others were assigned for the emperor's private use, for his harem and his attendants. Large monoliths adorned the halls or supported marble balconies and porticos, and polished slabs of different kinds of stone filled the intervening spaces or formed the floors. Everywhere, on projections and supports, in niches and corners, were evidences of the artist's skill in carvings and sculptures, incised and in relief.

After being conducted through a number of courts, passages, and rooms, partly for effect, the Spaniards were ushered into the audience-chamber, and removed their hats as Montezuma advanced to receive them. Leading Cortés to the throne, he seated him at his right hand, the rest being offered seats by the attendants. Around stood with downcast eyes a number of courtiers, who, in accordance with etiquette, had covered their rich attire with a coarse mantle, and left their sandals outside the room. The conversation fell chiefly on

religious topics, the favorite theme with Cortés, who aside from his bigotry was not adverse to use the faith as a means to obtain a secure hold on the people. In any case, it afforded a shield for other objects. He explained at length the mysteries of Christianity, and contrasted its gentle and benevolent purposes with those of the idols, which were but demons intent on the destruction of their votaries, and trembling at the approach of the cross. Aware of the inefficiency of himself and his interpreters as preachers, indicated indeed by the passive face of the proposed convert, Cortés concluded by intimating that his king would soon send holy men, superior to themselves, to explain the truths which he had sought to point out. Meanwhile he begged the emperor to consider them, and to abandon idols, sacrifices, and other evils. "We have given him the first lesson, at any rate," said Cortés, turning to his companions.

The ruler of a superstitious people, himself a high-priest and leader of their bloody fancies, was not to be touched by this appeal of Cortés. The prejudice of a life-time could not be so easily disturbed. He had well considered the words, he replied, transmitted already from the seashore by his envoys, and had found many of the points identical with those held by his people; but he preferred not to dwell on the subject at present. The god depicted was doubtless good; so were their own, for to them they and their forefathers owed health and prosperity. Suffice it that he believed his guests to be the men predicted to come. "As for your great king," he added, "I hold myself as his lieutenant, and will give him of what I possess." As a tangible proof thereof, he again before dismissing them distributed presents, consisting of twenty packs of fine robes and some gold-ware worth fully one thousand pesos.

HUBERT H. BANCROFT.

From forthcoming *History of Mexico*.

MEMORIZING HISTORY.

I WISH to state specifically that while recognizing the utility of the topic method in *all* recitations, and the essential importance of teaching by the use of outlines, it is at the same time necessary by some means to fix in the pupil's memory a near approximation to the dates of events; and if (and who doubts it?) what is worth doing at all is worth doing well, then it is quite proper and right to know that the year 1492 heralded the discovery of America, and not '94 or '95, or any other absurdity. I recognize the fact that "we should study history in its events and growth philosophically, with reference to their cause and effect"; but a familiarity with dates is certainly essential.

History as a text-book seems to be comparatively unknown, and without any valid reason omitted from the list of studies in the free schools of most of the counties of Ohio. But where it is studied, a fretful feeling is engendered

among the pupils, owing to a lack of method in memorizing dates. Now our methods are the result of the skillful application of rules deduced from experience and observation, and the following has stood the test of the school-room—the best criterion:

Take, for instance, the dates 1513–1613. The fact of their being one century apart attracts attention; continue thus:

1513—31.

1613—31.

The two last set of numbers are reversed, and there is a connection between the dates.

1513 marks the discovery of the Pacific Ocean (by the Spaniards).

1531 marks the invasion of Peru (by the Spaniards).

1613 marks the marriage of Pocahontas.

1631 marks the death of Captain John Smith.

Were not these two inseparably connected in the earlier history of the Old Dominion?

I add others without further comment.

1585, the rediscovery of Greenland; the first English settlement in North Carolina.

1524.—1531.—1534.—1541.

1692, Salem witchcraft—retrogression. 1792, Invention of cotton-gin—progression.

1756–63, French and Indian War; Seven-years War in Europe.

1792,)
1796,) Admission of States.
1802,)
1812,)

August 16th, { 1777, Battle of Bennington.
1780, Battle of Camden, S. C.
1812, Hull's Surrender at Detroit.

September 10th, { 1813, Perry's Victory on Lake Erie.
1814, McDonough's Victory on Lake Champlain.

Naturally there is a slight discrepancy existing among historians, and I have not confined myself to any particular author in selecting these dates. This is not offered as a novelty; it is practical, and while, of course, confined to simply a methodical memorizing of dates, it will overcome the principal objection offered by students to the study of this branch. A variety of combinations of an ingenious nature are readily formed by the live teacher, and an interest of an exhilarating nature is thereby maintained in the recitation.

The exclusive use of this method is, as I stated in fact at the beginning of this article, an excess to be avoided.

ALBERT P. SOUTHWICK.

ONE of life's hardest lessons from the cradle to the grave is waiting. We send our ships out, but cannot patiently await their return.

NOTATION AND NUMERATION MADE EASY.

THE true understanding of our Arabic system of notation among the children of our primary grades is perhaps rarely met. The haziness which pervades the minds of many is easily discovered by a few test-questions involving the writing or reading of numbers containing many naughts.

Sometimes a very simple illustration in teaching any subject will make plain what has heretofore been enveloped in intense darkness. All teachers know this. I have for several years tried in the following manner to lead my pupils in an easy and intelligent way to read or write any number which might be presented to them. When they come to me, the idea of units, tens, and hundreds has been developed, and some of their examples have exceeded hundreds of units of their result, and it becomes my duty to open out to them the unlimited field of notation and numeration.

Before our lesson we have a little conversation, something like the following:

"Well, John, what is your register number?" "One, ma'am."

"If I called number one, would you know whom I meant?" "Yes'm."

"Harry, what is yours?" "Six."

"If I called six, would you answer?" "Yes'm."

"Kate, what is your number?" "Nine."

"And would you know I meant you if I said, 'Nine, come here'?" "Yes'm."

"But suppose all the schools in this building were out in the play-ground at recess, and some stranger should come to the gate and call out, 'Number one, six, and nine, I want you,' would you be *sure* he meant you?" "No'm, he might mean one, six, and nine in some of the other departments."

"Very true; but how might he make you sure he meant you?" "He could say, 'I want numbers one, six, and nine in the Fourth Department.'"

"Yes; and if he wanted number one from Miss A.'s school, what would he say?" "Number one from Third Department."

With these ideas fresh in their minds, I would place on the blackboard a number containing nine figures. I have always found they caught the idea more quickly from a large number than from a small one. Taking, then, such a number, I would tell the children that in order to distinguish and talk about such a number easily, we divided it into *departments*, but that we did not put more than three in any one; and that to distinguish them from each other we gave to each a *name*. The first one was called *units*. I would then write the units' department by itself, and get them, from their positive knowledge, to tell me the names of each line; viz., units, tens, hundreds.

I would then take the second department, and tell them its name was *thousands*. Taking this department by itself, I would again draw from them the names of the lines. "How, then, will we know what is meant when I ask for units, tens, or hundreds?" They will at once catch the idea from our former conversation, and tell me I must say: Units from units' department, or

units from thousands' department, etc. The same plan would be adopted with millions.

In after lessons it will be quite easy to give the name *period* for *department*, and the preposition *of* for *from*, and the children will intelligently read to you: "Units of units, tens of units, hundreds of units; units of thousands, tens of thousands, hundreds of thousands," etc. When this is fully understood and impressed, a number with the last period incomplete will be given; then numbers where some of the lines have no significant figure; after this, numbers with whole periods to be supplied with noughts. If this plan be adopted, after a fortnight's instruction it will be next to an impossibility to puzzle with any example a child of even less than average ability.

"PALLAS."

Primary Teacher.

ENGLISH COMPOSITION.

LITERARY fame is the most lasting; knowing this, we can scarcely overestimate the importance of thoroughly training our pupils in English composition. There may be but few in our public schools who will ever become famous in *literature*, given the best training; but how many of them will ever become *famous* in anything?

Are they not as likely to reach a fair eminence in literature as in mathematics, music, or drawing? But where is the public school teacher who gives daily as much time and thought to the proper preparation of the class lesson in composition as in arithmetic or spelling? You say: "O but the practical advantages of arithmetic are so very great, and it is almost unpardonable not to spell fairly well; how can we take time from arithmetic or spelling for daily composition?"

Perhaps the young teachers present will pardon a few suggestions on methods of teaching composition.

Do not give a child a clean piece of paper and a new pen, and say to him: "Now, Johnnie, you must write a composition about your desk. You must write ten lines in twenty minutes." The child is abashed at once. The word "composition" makes him feel modest. He knows that if he touches that spotless paper he will soil it, and he does not like to mar its smooth, white surface with anything *he* can write. And then, what can he write about his desk anyway? He knows it's hard; he undoubtedly has some idea of its length and breadth; he knows that it is made of wood and iron; perhaps he knows that the wood was once a tree, and the iron came from the earth; but he is not interested in *that*. Suppose you begin this way: Johnnie, did you see anything pretty or anything funny on your way to school this morning? Perhaps he'll answer no; if so, try him with something else, and in this, study his natural inclinations. Some children see only the beautiful things, others have eyes only for the comical; some are easily pleased, others easily vexed; and you can always find a subject in this way, for there is not a child of ordi-

nary intelligence who will not see something on his way to school that he will like to tell you about if he is not afraid of you, especially if his way is along one of our quiet country roads. Perhaps a young lark taking its first flying lesson, or a bird's nest, or may be he has caught a frog for the first time, and is anxious to tell you all about it. Let him talk, but make him stick to his particular frog, not telling you about all the frogs in the pond, and all the other boys, and the dog.

After he has told you all he can about it, perhaps you might say something like this: That must have been a fine frog, Johnnie, and I would like to tell my little friend at home about it, but I am afraid I shall forget it before night; write it for me, please, on your slate. He will comply with alacrity (perhaps sufficient alacrity to make him noisy), but never mind that. He likes his slate; he is used to it; he knows that his sponge and a clean piece of rag will make all smooth and clean again if he does blunder. So he begins, and in five minutes has written all he can about his frog. Now go over it carefully with him, seeing that he himself corrects all his errors, making it as nearly perfect as a beginner can. Then tell him that it's too good to be lost, and he had better copy it in his new blank book, where it will be safe; this he takes considerable pride in doing as well as he can. He has also learned one reason why thoughts are written: "That they may not be lost." And so Johnnie has written his first composition without ever suspecting it. It has been a pleasure instead of a task, and both pupil and teacher have enjoyed it.

Of course your time for this individual work is limited; but in composition, individual work is the work that tells. With a few additions of your own to what John has learned about the frog, you would have a good subject for your more advanced pupils, or in graded schools for the entire class, and so save time. At the next lesson begin with another, and so on till all have been initiated. You will find it the pleasantest part of your school work. But make sure that the pupil has thought before he tries to write. Never accept as original what you have any reason to think is not so. To guard against this, no compositions should be written by young pupils except in presence of the teacher. Children are sure to use as their own, in writing, expressions with which they are familiar, whether elegant or otherwise. If we could insure their hearing and seeing only correct and refined expressions, we need never fear their using any other; but since we cannot prevent their hearing and using daily in conversation, and frequently seeing in print, expressions which, to speak moderately, are *inelegant*, we can only hope by patient perseverance to eradicate some of them from the written work of our pupils.

To do this will require constant vigilance on the part of the teacher. We should never accept from a child any composition exercise which contains an expression that the child can himself correct after the error has been pointed out to him. But do not ask him to correct the errors of others; his own are the only errors that it is necessary for him to correct. No written exercise should be called finished until the pupil has made each sentence a clear, concise, and elegant expression of his thought. This will require much drudgery from the teacher in the beginning, but the reward will be great.

And, my dear friends, if among the public-school children of Alameda County there is *one* who, by our patient training, shall be enabled to express the thought of an Emerson or a Bryant, in language beautiful as theirs, what better *earthly* reward can we ask?

Oakland.

MRS. E. HINCKLEY.

SOME PRACTICAL ARITHMETIC.

I HAVE quit the profession. They expect too much of teachers in California, especially in some of these back country districts, to suit me—John Greely. I had always prided myself on my skill in arithmetic, and I can work every example in Robinson's Practical; but it was on the rock of arithmetic I got shipwrecked.

I taught in Simi District, Ventura County, and the settlers there, it seems, always depend on the school-master to reckon their accounts. Now it looks as if it would be easy enough to make a settlement between two men, neither of whom can figure out the right answer; but let me tell you one thing, such folks will guess closer to the right answer than most people can figure out, especially school-teachers. They just say, "It ought to be about so and so," and all the figures in the world won't make them think differently.

The 1st of November in California is like the 1st of May back East, for all the renters move and settle up on that day; and so during the last week of October the folks began to come to me with the most outlandish examples you ever saw.

It's all very well to talk about giving the children practical examples, but I don't want any more practical examples given to me.

Jo Green came first, and said he wanted me to do a bit of figgerin' for him.

"Certainly, Mr. Green," I replied, feeling somewhat important with the knowledge within me, and ready to pour forth freely a bountiful supply to all who asked. "Very happy to oblige you, Mr. Green."

Green buys hogs, and he had a book full of figures that were "drafts of hogs," he called them; and he wanted me to add them up, and take out a box weighing 168 pounds, and see what they came to at $5\frac{3}{4}$ cents a pound.

Now, how was I to know that box ought to come out as many times as there were drafts of hogs? And it was real mean of Green (who suspicioned my answer wasn't right, and got another man to do it and hunt out my mistake) to go and report that I was fool enough to think than 750 hogs could all be weighed at once in a box six or seven feet square.

Then Woods wanted me to figure how many tons of hay in a stack 26 feet long, 17 feet wide, and about 13 feet high. I told him I wasn't good at guessing on the weight of a stack of hay, but if it was that stack near his house, there was about twenty tons in it I had heard Farmer Owen say, and he had handled and baled enough hay so that he could guess closer than I

could figure. Woods went off and reported that I must have got my certificate in some queer way, if I couldn't figure up a little stack of hay. I afterwards learned from my landlord that eight feet every way is a ton of hay; but that isn't in the arithmetics, and I can't see why I should be expected to know more than the arithmetic.

The next day a chap came along with some loose hay on a wagon, and he pulls a two-foot rule out of his pocket, and asks me to weigh his hay for him. The load was $12\frac{3}{4}$ feet by 10 feet by 8 feet (I guessed a little in averaging it), and I took my new-found learning, and told him there was almost exactly two tons there. He told me I was greener than the hay had ever been if I thought there was more than a ton of hay upon that wagon. How was I to know that *loose* hay was ten feet each way to the ton. That chap never will believe after this that I am good at figures.

Then Mr. Granger came along with his four-horse wagon-box full of ears of corn, which he wanted weighed. He said his corn was A No. 1, and he wanted to know what to pay per load. I thought I was able for this example, so I measured his box 15 feet by 4 feet 6 inches wide, and 3 feet deep with the side-boards. I reduced these to inches, multiplied them together, divided by 2150.42 to get it to bushels, and then multiplied by 52 pounds to the bushel, according to California statute law. Now isn't that what you would have done? He shook his head when I told him my answer, which I carried out to the hundredth of a pound; and I swore if the answer wasn't right to a pound, I would eat the whole load. Granger seized his scoop-shovel, and told me to open my mouth, for he vowed he could throw a ton and a half down my throat, and have as much left as he wanted to pay for.

It then flashed across me that I hadn't made any allowance for the cobs, but had figured on shelled corn. My reputation was gone with Granger; and he was buying his corn of one of my school directors, and I knew he would inform on me at headquarters.

That night I asked my landlord how they measured corn on the ear in Ventura County, and he said that real good corn shelled about 25 pounds to the cubic foot, while corn that was not so good shelled 24 or 23 pounds, and they sold from 4 cubic feet to $4\frac{1}{2}$ cubic feet for a cental, just as they could agree about the quality of the corn.

But the district clerk put on the last feather that broke my educational back. "Jones is to haul some wood to the school-house to-morrow," the clerk told me, "and he will want to overcharge us if we don't measure it after him. I can't come down myself, so you measure it, and send me word how much there is, as Jones wants his pay right off." I measured the wood, and Jones took my figures without a murmur, and got his money.

Now, in San Diego County, where I once taught, *two* tiers of stove-wood eight feet long and four feet high made a cord; but in Ventura, as I have since learned, they sell *three* tiers to the cord, and the clerk vowed I should pay for the surplus that Jones had received above what was really due him.

He was terribly offensive in his talk; and when he said Simi District had no use for a teacher who could not measure a little pile of wood, hay, or corn, or add up a lot of hogs straight, I resigned on the spot.

As I was packing up the next morning, a fellow came to know how many shakes he must buy to put a shed-roof on a house 25 feet by 10, and I came pretty near getting into a muss by telling him to go to a place where they don't use shake roofs.

P. S. Tucked away in my memorandum-book is a nice little account that I promised to straighten out at my leisure. It is a practical example in partnership, and the figures were painfully got at after two hours' actual work.

CHARLES M. DRAKE.

Santa Paula, Ventura County.

ROMER, KING OF NORWAY.

A TRAGEDY IN FIVE ACTS.

ACT I.

SCENE I.—A room in Welhaven's house.

Hela discovered reading.

Welhav. What tale is this, my pretty one, that holds

Such full possession over all you thoughts?

Hela. A pretty tale about two Danish lovers;

But cruel fate between them stood, alas!

For she was cousin to a prince in Denmark,

And he was but commander of his bark;

But in that bark at last he took his love

And dashed out o'er the ocean.

Welhav. But had the tale a moral?

Hela. A very pretty moral—they both escaped,

And all their foes were drowned then in the ocean.

Welhav. Why, yes, why, yes, but other morals, Hela—

Hela. Why, father, when I read I read for pleasure

And not for morals.

Morals are plenty over all the earth.

The sweetest one is in the night-bird's song;

The mighty river rolling to the sea

Has a deep moral in its bosom hid.

Welhav. There are you right.

For pleasure, still read on, my pretty one,

And draw while you are young

The honey from this hard, hard earth of ours.

Hela. Your gloomy tones put evil thoughts in me.

Has evil news then reached you from the war?

Welhav. There was a battle, yet still all is well;

Our King has gained a victory 'gainst the foe—

'Tis whispered that the rebels here in Norway,

Under the lead of that most dangerous Ehrensvard,

Are in a league with this our Danish foe.

Hela. He seemed not dangerous ten years ago,

When he was young and to the world unknown.

Welhav. But in his heart a hot ambition burned

That had a blaze then dangerous for his country.

I aided him because I knew him poor,

And aided then a viper.

Hela. Against you too?

Welhav. He works against my country, and therein

Does work against me.

Hela. Which way, think you, does his ambition point?

Welhav. It has no bounds; would leap up to the throne.

Hela. Nay, but he would not dare to be a king.

Welhav. But he would dare to play great Caesar's part.

And though I serve my king—for 'tis my duty—

I say as all his people oft have said,
He is a tyrant, and the love for tyrants
Is like the anger of a tiger,
And if this outlawed rebel joins with Denmark

The throne of Norway may be shaken yet.
The priests have made a secret pact with him,

And though it hurts their pride, the noble-men

Join one by one with Ehrensvard ;
But ere he wins there'll be a bloodier war
Than this against Denmark, each grassy
hillock

And every running stream be hued with
blood.

Hela. O, that men should be of such a
nature,

That they can love to slaughter one another ;
To slash and cut and carve the life away ;
To make a hell of pain, a sea of blood,
And then wade through it—'tis tiger-like !
Were you not old you'd go again to war.

Welhav. My poor, poor Hela ! ill secrets
must have out.

The armies of the King have been again
Placed under my command.

Hela. But you'll not leave me here alone,
my father ?

Welhav. Poor daughter, but I must.

Hela. But this is hard—so very hard in-
deed.

Go tell the King you're aged and lonely
now,

And that your daughter has no mother now.
I know that then his heart will grow as soft
As morning sunlight melting night's dark
heart.

Welhav. The King, my child, must have
some one to lead.

Poor, pretty Hela, innocent as is
A little bird that flies out o'er the ocean
And learns too soon the tempest and the
storm.

Poor wanderer, it flees so wearily,
And round and round, and now blown with
the gale ;

Now to the north it flies away for help,
Now to the south, and then to the west and
east,

But none there are to lend a helping hand.
And then at last tired out with battling
death,

It shuts its wings and sinks down 'neath the
storm.

Hela. O, how I shudder thinking of the
danger.

The bloody fields, where cannons thunder
out,

And from iron lungs belch clouds of smoke
To veil the horrid scene from heaven's eye ;
I hear the screams, the wails of dying men ;
See dreadful butchery ; unlimbered cannon,
Dead men and wounded all together lying—
O, father, father, do not go away !

Welhav. Why, Hela, child, you make
too bloody a scene.

Hela. And there are dangers, father,
here at home.

Dangers that now I cannot name to you ;
O stay at home and be here at my side
When I must face them.

Welhav. Why, what a little coward now
she is.

[Enter King.]

King. A merry morning to my pretty
cousin.

Hela. This is no hour for merriment with
me.

King. The war brings hardship to us all,
my cousin,

But we must dare to battle with it too,
And when your father marches 'gainst the
foe,

Our palace shall become the while your
home.

Hela. A most unhappy home without
my father there.

King. The pleasure at our court will
cause you soon

To cast away your grief.

And you may wait upon our suffering Queen.

Welhav. Cannot the doctors tell then
what is wrong ?

King. They tell me now they fear her
mind is mad.

And have commanded that all visitors
Be kept away

And friends restrained from having converse
with her.

Welhav. Our Queen gone mad ! Her
sweet mind gone !

It seems a wicked thought to dare believe
it.

The kingdom of her soul, all, all in ruins !

King. The hand of fate—her father died
a madman—

Welhav. Well, I remember when I was
a child

I heard my father telling of his madness.

King. Ay, ay, 'tis true—'tis very true indeed.

And now good by, may you have such success

That glorious honor shall on your gray hairs
Sit as a crown when you return from war.

Welhav. Nay, I'm too old to love new honors now,

Too old to flattered be, and fooled by them;
Unless that honor be to serve my King
Whom not to serve would bring dishonor on me.

[*Welhaven and the King go out.*]

Hela. Would that I knew all that's hid in the future!

O that these eyes could look through its dark mist,

And see the secrets that lie hid beyond.

I fear the King; his actions have a strangeness

When he comes near me, I cannot interpret;
He gazes, O so deeply, in my eyes,
As if he sought some far-off, hidden thought;
And yet there is a sadness in his look;
But I must now beware of him, for he
Is chilly-hearted, cold, and cruel, unless I greatly wrong him.

[*Re-enter King.*]

King. Unless you greatly wrong him.

Hela. Can you then look upon the closed-up mind

And see the swarms of thoughts at work in there?

And do you glance down through the eye, that gate

That opens on the brain?

King. Have charity, my pretty cousin Hela;

Why, even I can pity all mankind.

You see we are such poor, weak, villainous wretches, and we have so many sorrows, and so many pains, Hela, that we should pity and should love one another. And there should be no hate in all the world. O the little envies and the little suspicions, why, they are unworthy the heart of a mouse. But to have a great heart that beats for all the world, is worthy of a god. For you see we are all about equally good, when you come to think of the trials that each man is subject to; and the poor, poor wretch that goes down, down, until she becomes but a mere shadow of what she was, may yet have as warm a heart way beneath that cold surface as any of us. And who knows of the writh-

ings of heart, and the agony of soul that the poor tender bosom suffered once, when none would speak kindly, when none would shed a tear, but all were harsh, harsh, harsh, as the cruel winter wind? Kind? Why, the holy ladies would pass her by with a look that would harden the heart of an angel. My God! The whole world is upside down.

The terms good and bad, Hela, are human terms; all are good in the sight of the Creator, for he would make nothing bad. And who knows but somewhere way up there among the stars there will be a place that we will pass to, after going through the gate of death, where we will all be equally well off? And then we may pass through another gate of a like death to another world, and so we will go on and on through the universe, like the great stars.

Hela. Forgive me, cousin, I have long been wrong, And in my heart have wrongly slandered you.

King. My gentle cousin Hela, you're not like all the world,
For when we look upon men's petty actions
That are so small, so vilely small,
We soon forget their many noble deeds.

[*It grows gradually darker.*]

For look you, Hela, when I wake at night,
I curse the world to pass away the night;
I think how when two enemies in heart,
With smiles that shadow forth a serpent's venom,

Meet on the street,
They're but, my Hela, hideous skeletons,
That clasp their bony hands together.

Hela. Your mind's a graveyard, and there fearful horrors
Do buried lie—but I will pity you.

King. You pity me, you gentle-hearted one,
When all the world beside does hate me now?
What salve can cure like pity's healing glance?

When dying men see angels looking down,
Their pitying glances enter in where seas of pains

Are raging wildly, and they make a calm.
Ha! ha, O, Hela! Hela! Hela!

Your sweet eyes, they hold not a curse for me;

Your rosy lips make not a pretty path,
O'er which hard words come running against me;

Methought once that 'twas so.

Hela. It is not so ; when you have troubles I will pity you.

King (aside). Pity? Pity? When woman pities, my pretty Hela, but one step more and 'tis transformed to love.

I thank the heavens that one is kindly left
Of all the wide world that will pity me.
At times I feel so sad, so very sad,
That then I wish that my impatient life
Would break its rein and gallop to the death.
And when I feel so sad, there's never a one
In all the world that comes to comfort me ;
When with each beat my heart does forge a pain
There's no one then to charm that pain away.

I'm coming, Hela, coming ten days from now,

To take you (as I promised your father)
To stay within our palace (away from dangers

That war by chance might bring across your path),

And till that time, my time will be employed
In watching how my brain-sick wife goes on.

Hela. Poor, gentle woman, but I loved her well.

She loved the world's small-winged inhabitants,

And made them her companions oft for hours—

The humming-bird that sent his music waves
To break upon the banks of flowers around ;
The morning lark she loved to listen to,
That charmed the day from out his hiding place ;

The swallow, too, that built his hanging house ;—

She loved them all, and seemed to be like them

In mind and thought, and in her every action.

What wintry frost could kill so sweet a flower ?

King. The chilly breath of madness could alone. [Exit.]

[The moon rises, and her light falls through a window.]

Hela. O Ehrensvar, O Ehrensvar, and will I never see your face again ?

Are you too great to think now of your Hela ?
O, happy hours of childhood passed away
When we were ever near to one another,

When every thought between us two was shared ;

When life moved onward like a summer's dream.

Alas ! Those hours can never come again,
And I can ne'er again see Ehrensvar.

[Enter Ehrensvar through window.]

Hela. And can it be, or do my eyes deceive me ?

O, Ehrensvar ! [Falls in his arms.]

Ehrens. You have not then forgotten me, my darling ?

Hela. Forgotten you ? O, do not ask me that !

Could I forget you while a thousand dangers
Do ever hem you round ? O, no ; my heart
Is ever trembling when I think of you ;
Much rather should I ask, have you not long
Ago forgotten me, while you are led
By fierce ambition ?

Ehrens. All my ambition

Is but to rise up in the world's esteem
Till I may claim your hand.

One time I tried to write such words of fire
That they would brand time's rolling centuries

And leave my name to light the heaven of thought for future ages.

But when I learned who were the men that wrote,

I scorned to enter in their company.

Why, I had rather rot than be of them ;

But were my thoughts the very essence—the music

That makes so sweetly sound the voice of reason—

Ay, were my language that a god might use ;
Men are not gods to know it, and they will not

For many a century. When I was living
Within your father's house, the King one day

Did pass me by, and knowing that I loved you,

Looked on me scornfully, and spoke to me
With scornful words. And then I took the sword,

And waited for my time, which came at last,
And ere that time has grown gray-headed, I
Will write upon his throne the word "destruction."

Hela. But you may have to battle 'gainst my father—

Ehrens. And if I do, this sword shall ne'er be raised

Against his honored head.

Hela. Hark! Then I thought
I heard a footstep. O, your life's in danger!
Ehrens. Ay, true; 'tis e'er in danger.

When I was born,
A tempest raged around me on the ocean;
The vessel I was on drove on before it,
And crashed upon the rocks that lined the
shore.
'Tis strange that only three escaped the
wreck,
My mother and my brother and myself;
Some peasants saved us, but I never heard
What did become then of my mother and my
brother.

Hela. Why, so our King was wrecked
one winter night;
His mother only did escape with him,
And she did have a new-born babe that
perished.

Ehrens. 'Tis strange my greatest enemy
should have
A history like my own.

Hela. 'Tis very strange—
[The moon ceases to shine through the
window.]

[Enter Welhaven.]
Welhav. Whom have we here?
Ehrens. One from the rebel Ehrensvard,
who sends
A locket, which your daughter long ago
Did give to him.

Welhav. Where did you meet the rebel?
Ehrens. Deep in the mountains; and he
threatened me
With death if I should not deliver this,
And he does threaten now that one
Whom he does call no King, but tyrant only.

Welhav. What learned you then about
the rebels' movements?
Ehrens. I could learn nothing, for 'twas
but a moment
I staid there with them.

[Exit Welhaven.]
Hela. Thank heaven he's gone!
O, my love, but you must leave me now;
I tremble for your life while you are here.

[Footsteps heard.]
Hark! Hark! My father comes again.
Ehrens. Good by, my darling, when I
come again
I'll bring a thousand keen-edged flashing
swords
To ring aloud a melody of death;
And when the glorious sound of victory

Rings to the very vault of yon blue heaven,
Then will I come to find my gentle Hela.
Good by, one more good by.

[Kisses her.]

[Exit.]

[Enter Welhaven with soldiers.]
Welhav. Where is your messenger?
Hela. Gone.
Welhav. Why did you let him go?
Hela. And did you wish to make the
man your captive?
Welhav. He was a traitor; in the dark
I knew that.

SCENE CLOSES.

SCENE II.—A street. Enter two citizens.

1st Cit. Is this the place?
2nd Cit. Yes; here they pass at one
o'clock to-day.

They are bold men and they will battle well,
Bold in the heart and cheerful in the mind;
Such men as they do win great victories.

1st Cit. I hear that when the cross-roads
have been reached,
Three thousand Swedish mountaineers will
join them;
These men are very bull-dogs for the fight,
Reveling in blood as 'twere their element;
They'll charge the foe as to a bloody feast;
The foe will meet with tigers when they
meet them.

[Enter 3rd Citizen.]
3rd Cit. Our men assemble at the west-
ern end;
Wives cling to their husbands as they say
good by,
And mothers to their sons are clinging too.

2nd Cit. It must be sad to see friends
forced to part.

3rd Cit. The word "good by" is drawn
from out the mouth as it were loth to come.
I saw a father in one hand hold his gun, and
in his other he held his babe, and pressed
it to his bosom; while to his knees his other
children clung, and begged him not to go
away and leave them.

1st Cit. 'Tis rumored that the King will
not lead on the army.

3rd Cit. The rumor shines this time be-
fore the truth;
The King will not lead on against the foe;
He holds not back though from a lack of
courage,
For when he battled for his usurped throne—
1st Cit. Beware what words you speak!

3rd Cit. Am I a slave to fear a tyrant's power ?

I tell you, man, before the moon is full
There will be never a tyrant here in Norway.
I say that when the King usurped the throne
More like a tiger than a man he fought,
And with a courage that approached a mad-
ness
Did head his armies.

2nd Cit. I have heard it said

That fiends protect him when he faces dan-
ger ;

And he communes with witches stormy
nights,

When bleak winds blow along the Norway
coasts.

One night, when thunders rattled through
the heaven

Before a mountain cavern was he seen.

The lightning showed three witches stand-
ing by him,

Whose withered faces shone in its red glare ;
The storms flew past him on the wind's
cold wings,

And ever and anon the chilly moon
Grinned down between dark clouds.

1st Cit. Some Laplands saw him too,
one winter night ;

The while the moon held in her yellow arms
There icy stars up in the chilly heaven,
With spirits dancing on the frozen snow
Beneath the trembling borealis light.

2nd Cit. Who now will head his armies ?

3rd Cit. The General in Chief will be
Welhaven,

Who has, by reason of his age, been long
retired. [Exit.]

[Enter Welhaven dressed as a soldier and
Hela with him.]

Welhav. Why, now I feel as once I felt
of old ;

Sacramento, Cal.

A soldier's blood is coursing in my veins,
My sinews strain to grasp the sword of
battle ;

And now my heart beats marches to that
field

Where warlike phantoms flit before my eyes.

Hal were the foe e'en numbered now to
millions,

We'd raise such flames of battle in their
ranks

That rains of twenty winters could not
quench.

Hela. But, father—

Welhav. Ah, Hela, your voice awakes
me now—

Like dreams at night, that half-dreams only
are,

Where we in fancy tread again the past,

A waking thought will ruin all the dream ;

So, your sweet voice, my gentle, lovely
one,

Has shattered all my vision—

Who'll care for Hela when I'm far away ?

[A drum heard in the distance.]

Hela. Is that the drum that tells us we
must part ?

O, wretched drum to speak so hideously !

Your horrid tone does have a blood-like
sound ;

Your wretched tone brings shadows to my
mind

Of some poor soldier looking up to heaven,
Yearning for water, while he dies of thirst ;

Of some poor soldier wounded cruelly
And breathing out his life in piteous groans—

[Soldiers march in.]

Welhav. Good by, my child, until we
meet again.

Hela. O, but you must not go ! You
must not go !

[Exit Welhaven leading soldiers.]

ADAIR WELCKER.

[END OF ACT I.]

THE education of the child must accord both in mode and arrangement with the education of mankind considered historically; or, in other words, the genesis of knowledge in the individual must follow the same course as the genesis of knowledge in the race. Hence, in deciding upon the right method of education, an inquiry into the method of civilization will help to guide us.—
Spencer.

SELECTED MATTER.

HUMAN ENDURANCE IN THE WATER.

MEN and animals are able to sustain themselves for long distances in the water, and would do so much oftener were they not incapacitated, in regard to the former at least, by sheer terror, as well as complete ignorance of their real powers. Webb's wonderful endurance will never be forgotten. But there are other instances only less remarkable. Some years since, the second mate of a ship fell overboard while in the act of hoisting a sail. It was blowing fresh, the time was night, and the place some miles out in the stormy German Ocean. The hardy fellow nevertheless managed to gain the English coast. Brock, with a dozen other pilots, was plying for fares by Yarmouth, and, as the main-sheet was belayed, a sudden puff of wind upset the boat, when presently all perished except Brock himself, who, from four o'clock in the afternoon of an October evening to one the next morning, swam thirteen miles before he was able to hail a vessel at anchor in the offing. Animals themselves are capable of swimming immense distances, although unable to rest by the way. A dog recently swam thirty miles in America in order to rejoin his master. A mule and a dog washed overboard during a gale in the Bay of Biscay have been known to make their way to shore. A dog swam ashore with a letter in his mouth at the Cape of Good Hope. The crew of the ship to which the dog belonged all perished, which they need not have done had they ventured to tread water as the dog did. As a certain ship was laboring heavily in the trough of the sea, it was found needful, in order to lighten the vessel, to throw some troop-horses overboard, which had been taken in at Corunna. The poor things—my informant, a staff-surgeon, told me—when they found themselves abandoned, faced round, and swam for miles after the vessel. A man on the east coast of Lincolnshire saved quite a number of lives by swimming out on horseback to vessels in distress. He commonly rode an old gray mare, but when the mare was not at hand he took the first horse that offered.—*Henry MacCormac, in Popular Science Monthly for July.*

KNOWLEDGE OF THE NEAR.

IT is no uncommon thing for a boy to learn the productions of India, and yet not be able to tell the manufactures of his own village. The plan of nature is often reversed. The distant is studied first, and the near last, if at all. Matthew Arnold speaks of this as being no infrequent thing in Scotland, hard-headed and wise-brained as are the Scotch. The children learn to define monocotyledonous plants, and yet cannot distinguish the ash, elm, oak, beech, and fir; nor could they tell the difference between nor recognize a linnet nor a wren, nor name a dozen of the commonest flowers.

The marking down of courses of study, and the calculation of percentages,

has given the public the idea that education is synonymous with the acquirement of an amount of information. The fixing of a course of study has done an infinite deal of harm. Subjects should be studied, and even these may be so pursued as to render the advantage a mere verbal one. It is a very curious thing to watch the slow reaction of the public mind against classical study. There was a time when all the knowledge of the world was written in Latin and Greek, and hence it was imperatively necessary to know Latin and Greek in order to get at this knowledge. But in the course of time this was changed, and our English language contained stores of information; still, if one wanted "to get an education," he was put at Latin and Greek. When this was somewhat changed, the courses of study were filled with the "pretentious ologies." Mineralogy was studied (rather, *is* studied) with the book in hand; the pebble, the rock, the paving-stone under the feet, the slate on the roof, are passed by, and the crystal from a distance is selected, if anything is placed before the eye or put in the hand.

When this dire need of the pupils is brought to the notice of the teacher he excuses himself, on the ground that it is not so laid down in the course of study, or that he must prepare his class for examination, or that no matter how wisely he would teach them, if they did not have the knowledge the examiner had fixed on as needful, he would be "reported" as a failure. He admits the awkward, illogical, uneducative plan of teaching the far-away, but still adheres to it. In education the great law stands, and must be obeyed: *Proceed from the known to the unknown, from the near to the far.*—*New York School Journal.*

INDIAN ARROW HEADS.

A YOUNG man in the Smithsonian Institute, writes the Washington correspondent of the Cleveland *Leader*, has just made public the discovery of the method employed in making the stone and volcanic arrow-heads, daggers, knives, axes, and razors of the prehistoric race. Up to this time, this has been a great problem to all antiquarian students; but no theory has been advanced showing such practical results as Mr. Cushing's. He started to solve the difficulty by placing himself in the identical position of the Aztecs or mound-builders, without anything to work with except sticks, various-shaped stones, such as he could find on any stream, and his hands. After making some rude implements by chipping one flint with another, he discovered that no amount of chipping would produce surfaces like those he was trying to imitate. He then came to the conclusion that there was another way of doing it, and by chance tried pressure with the point of a stick, instead of chipping with the blows of a stone, when he found he could break flint, stone, and obsidian in any shape he chose. Soon after he made spear-heads and daggers that would cut like a razor, as good as any he had before him, which he picked up from all over the world. By a little more observation, he found that the "flaking," which he calls his process, on the old arrow-heads left

grooves, which all turned one way. He produced a like result by turning his stick the easiest way from right to left. He therefore concludes, that pre-historic men were right-handed people, just like ourselves. This conclusion is reinforced by the fact that occasionally an arrow-head is found which has the flakes running from left to right, showing a left-handed person. The importance of the discovery is, that it shows the early races were able to do this work without the use of iron or bronze, a thing long doubted.

THE SEVEN BIBLES OF THE WORLD.

THE seven Bibles of the world are the Koran of the Mohammedans, the Tri Petikes of the Buddhists, the Five Kings of the Chinese, the three Vedas of the Hindoos, the Zendavesta, and the Scriptures of Christians. The Koran is the most recent of these, dating about the seventh century after Christ. It is a compound of quotations from the Old and New Testaments, the Talmud, and the Gospel of St. Barnabas. The Eddas of the Scandinavians were first published in the fourteenth century. The Petikes of the Buddhists contain sublime morals and pure aspirations, and their author lived and died in the sixth century before Christ. There is nothing of excellence in these sacred books not found in the Bible. The sacred writings of the Chinese are called the Five Kings, the word "Kings" meaning web of cloth. They contain the best sayings of the best sages on the duties of life. These sayings cannot be traced farther back than eleven hundred years before Christ. The three Vedas are the most ancient books of the Hindoos; and they are believed to date not beyond eleven hundred years before Christ. The Zendavesta of the Persians is the greatest of the sacred writings next to our Bible. Zoroaster, whose sayings it contains, was born in the twelfth century before Christ. Moses lived and wrote the Pentateuch fifteen hundred years before Christ, therefore that portion of the Bible is at least three hundred years older than the most ancient of other sacred writings.

WHAT A THINKER THINKS.—Dr. C. W. Siemens, president of the British Association for the Advancement of Science, made a remarkable address on taking the chair. He is a scientific investigator of the first rank, and hence his views were listened to with profound attention.

He thinks, for example, that ships will before long be built of steel of such extreme toughness that in case of collision, or striking on a rock, the only result will be a bulge, but no rupture. Steam engines he considers to be too wasteful, and hence doomed to be laid aside. The best of them require the consumption of two pounds of coal to each horse-power per hour. He predicts these will be superseded by a gas engine needing one pound of coal or one horse-power for one hour.

As to coal-gas, he estimates that the ammonia, sulphur, coal-tar, gas-coke, carbolic acid, and other incidental results of the manufacture produce fifteen millions of dollars over and above the gas—more than the original cost of the coal. But he declares 120,000 tons of sulphur are wasted which ought to be utilized. He thinks the manufacture of gas should take place in the coal mines themselves, the gas being carried thence by pipes wherever wanted.

Electricity will also, he thinks, become largely serviceable for distributing power. The electric light, however, will mainly be used to light public places, while gas-lighting and gas-heating will become universal.

READERS IN PRIMARY SCHOOLS.—During the first two months or more of school life, readers should be as scarce as angels' visits. Pictures, blocks, toys, and a slate and pencil will fully equip the coming citizen for the work before him, while the blackboard and crayon will be the main reliance of the teacher. When the reader is finally put into his hands, it should only be for a class exercise, and rather as a favor than an enforced study. The child should not be required to read what is awkwardly expressed, or beyond the range of its own ideas and experience, even though it be found in the reader. When the ideal reader, containing an abundance of matter adapted to its needs, shall get written in the child's own vocabulary, the work of the primary teacher will perhaps require less originality and skill, but under no circumstance will it be possible to secure the highest results if inexperience or imbecility are at the helm.—*M. L. Hawley, Superintendent Schools, Gloucester, Mass.*

I HOLD the teacher's position second to none. The Christian teacher of a band of children combines the office of the preacher and the parent, and has more to do in shaping the mind and morals of the community than preacher and parent united. The teacher who spends six hours a day with my child spends three times as many hours as I do, and twenty-fold more time than my pastor does. I have no words to express my sense of the importance of your office. Still less have I words to express my sense of the importance of having that office filled by men and women of the purest motives, the noblest enthusiasm, the finest culture, the broadest charities, and the most devoted Christian purpose. A teacher should be the strongest and most angelic man that breathes. No man living is intrusted with such precious materials. No man living can do so much to set human life to a noble tune; no man living needs higher qualifications for his work. Are you "fitted for teaching"? I do not ask you this question to discourage you, but to stimulate you to an effort at preparation which shall continue as long as you continue to teach.—*J. G. Holland.*

AT home and at school the boys should be taught the natural effect of alcohol upon the processes of human life. First, they should be taught that it can add nothing whatever to the vital forces or the vital tissues—that it never enters into elements of structure; second, they should be taught that it disturbs the operation of the brain, and that the mind can get no help from it which is to be relied upon; third, they should be taught that alcohol inflames the baser passions, and debases the feelings; fourth, they should be taught that an appetite for drink is certainly formed in those who use it, which destroys the health, injures the character, and, in millions of instances, becomes ruinous to fortunes, and to all the high interests of the soul; fifth, they should be taught that crime and pauperism are directly caused by alcohol. So long as \$2,000,000 are daily spent for drink in England, and \$2,000,000 per day in the United States, leaving little else to show for its cost but diseased stomachs, degraded homes, destroyed industry, increased pauperism, and aggravated crime, the boys should understand the facts about alcohol, and be able to act upon them in their earliest responsible conduct.—*Parish Magazine.*

EDITORIAL DEPARTMENT.

THE DECADENCE OF TEACHING AS A PROFESSION.

ONE question we should like to see submitted to the people is, an amendment to that section of Article IX. of the Constitution which relegates the entire control of issuing teachers' certificates to the local boards of education. This section is already causing a decadence of teaching as a profession in this State. In fact, under it, there are no professional teachers in California; persons holding certificates being teachers in that county only where the certificates are issued.

What should a teacher's certificate be? We answer, *prima facie* evidence of competence to teach; and if it is right and wise and proper to ignore in Butte County the certificate granted in Alameda, then it is equally right and wise and proper to ignore a certificate of 1882 in 1883, and require every teacher (as was done in the "good old times") to pass a fresh examination every year.

The present system, despite the masterly plea for it made in the recently issued report of Supt. Campbell, is utterly bad, and without one redeeming feature. It results in a decadence of the professional spirit, because under it there is no uniform standard whereby to determine who are and who are not professional teachers. A lawyer who holds a licence from his own Superior Court will obtain but scant recognition from the Superior Court of the county adjoining; none at all from the Supreme Court, even of his own State. But let him have as evidence of his professional training and knowledge (though he may be the same poor lawyer) a certificate from this latter court, and his standing is determined; he obtains a hearing in any court of his own State, and by courtesy everywhere.

One of Supt. Campbell's strongest arguments is, that the best teachers do not move about from county to county, and hence need no other certificate than the one originally granted them. This, we say, is doubly unfortunate, viewed either as a cause or result, and it may be either under the present system.

As a free circulation preserves the purity of the ocean waters, so general movements in the vast army of teachers, encourage effort, stimulate ambition, reward successes in rural and out-of-the-way districts by promotion to positions in the great centers.

We notice the fact commented on in an Eastern educational journal, and we here endorse it, that there is nothing more pernicious to the well-being of a school or school department than an exclusive selection of its teachers from among its own students and graduates. This is a custom now to be deplored in San Francisco, in Oakland, in Sacramento, in nearly every locality on our coast. Teachers so chosen, even if they have been away a year or two at a normal school, are apt to be narrow; to be entirely deficient in a knowledge of comparative—*childology*.

Under such a system, there is no tendency to invite to the places where salaries are highest the best talent from all quarters, but to pay such salaries indifferently to those indifferently elected to positions, until the time comes when salaries may easily be reduced. That this happens, owing mainly to the decadence of the profession, we believe Supt. Campbell's own figures show.

Another argument relied on in support of the present system is that it increases local responsibility. This means that the local boards know that the certificates granted will be used in their own county, and that their own incompetents cannot be foisted off on some other locality.

This seems reasonable enough until we consider that members of county boards of education are but mortal; that from their very situation they are altogether open to all the different kinds of powerful pressure, social, political, religious, and professional (for, are they not the teachers of these very young women and young men who are here before them?).

It is because "the responsibility can be directly fixed," as Supt. Campbell has it, that certificates are granted and not withheld; such is the weakness of poor human nature, that when a State board existed somewhere off in the distance, it was easier to refuse a certificate, and place the responsibility on them. Indeed, under the old system, where county boards granted county certificates, and sent on papers to the State board for State certificates, there were always a large number who failed to get the latter, but were successful in getting local certificates. And this was not because the standard differed, but because the weak cases were generally not sent on to the State board for marking.

There are some curious workings in the present system, which show why the standard for teacherships is declining, why salaries are lower, and why the schools must suffer. There are no two counties in the State where the methods of examination agree, or the questions are similar. Yet a person examined in a county where the standard is low, the schools small, and employment irregular, may, after five years, get on his first grade county a State diploma, and finally a life diploma, which will enable him to teach in an adjoining county, where on an original examination he could not get even a second-grade certificate.

Instances of this kind are constantly occurring, and they have already resulted in injury to teachers and schools alike.

The importance of the subject is our apology for the space devoted to it. If we have erred in aught, our columns are open for argument and refutation. In fact, in writing it has been our object to invite discussion. The legislature is now in session, and if the superintendents of the State—the great body of professional teachers—wish that an error (if error it was) may be retrieved, let them now speak, or forever after hold their peace.

PERSONAL NOTES.

EX-STATE SUPT. FRED. M. CAMPBELL, on the expiration of his term of office, was offered the secretaryship of the Senate Committee on Education, which position he accepted. The gentlemen composing this committee reflected great credit on themselves in ignoring all political considerations, and without personal solicitation availing themselves of the services of a gentleman so thoroughly master of educational affairs as Supt. Campbell.

State Supt. Welcker has appointed as his deputy Adair Welcker of San Francisco. Mr. Welcker is a genial gentleman, a graduate of the State University, and at the time of his appointment was in the enjoyment of a large practice as an attorney-at-law in this city.

He is a man of wide reading and excellent literary taste, and has written considerably for publication. In this number we publish from his pen a tragedy, which possesses a high degree of literary merit.

Mr. Welcker will, we are sure, be considered a decided acquisition to the State office of education.

Mrs. Kate A. Campbell, Supt. Campbell's obliging and very efficient deputy and general better-half, was complimented on the expiration of her term of office in Sacramento by an election to a position in the Prescott Grammar School, Oakland. Few persons deserve appreciation as much as Mrs. Campbell, and the announcement of her success will gratify thousands of sincere friends.

Pleasant episodes connected with the recent meeting of the State Association of Teachers in San Francisco were the presentations to the retiring State Superintendent Fred. M. Campbell.

Of the surprise carried out in the superintendents' convention, the pleasant, appreciative speech of Supt. Smyth of Sonoma, the presentation of the handsome gold-headed cane, we have written in our January number. The other episode occurred at the close of the meeting of the State Association. The superintendents in the hall above were about to adjourn, when an imperative summons came for Supt. Campbell. On reaching the platform in the main hall, he was confronted by Ex.-Supt. Azro L. Mann, who then and there, in well-chosen and frequently applauded sentences in behalf of the teachers of California represented in the State Convention, presented him with a beautiful souvenir of respect and appreciation in the shape of a bronze clock.

Supt. Campbell's reply was a trifle confused; one quotation only could we distinguish: "Beggars that I am, I'm poor even in thanks."

Joseph O'Connor, who has been appointed deputy superintendent of the San Francisco schools, has worked his way up from a comparatively low position in the department to a leading place. He began as a teacher in the evening schools, was then elected vice-principal of the Spring Valley School, then became evening school principal, and then principal of the Washington Grammar School. In addition, he has served on the city board of examiners for more than ten years. He is an educator in the broadest sense of the term, has a close and intimate knowledge of the workings of every part of the school system in San Francisco, and under his administration we may confidently expect activity and progress.

The teaching profession of California lose one of their most valuable members by the early death of Kirke W. Brier, of the Sacramento High School. Prof. Brier was a fine scholar, an effective, sympathetic teacher, and a most indefatigable worker. Indeed, it was probably to his lack of care for himself, in his desire to be at school to advance his classes, that his death from brain fever was due. Two men, Prof. O. M. Adams and Mr. Brier, have established the reputation of the Sacramento High School as unexcelled as a school preparatory to the university. The sympathy of many friends is with Prof. Brier's family in this deep affliction. Though gone, he will be long remembered, and his work will not die with him.

Both Governor Stoneman and State Supt. Welcker, in their addresses before the State Association, expressed themselves as strongly opposed to unnecessary changes in school matters. In regard to educational interests, they favored a decidedly conservative policy.

From an Eastern exchange, we see that Governor Stoneman may have a more than merely abstract regard for educational matters. His sister, Miss Kate Stoneman, is a leading teacher in one of the New York State Normal Schools.

THE COUNTY SCHOOL SUPERINTENDENTS AND THE CHANGES IN THE SCHOOL LAW.

WE have not the bill at hand just introduced as the bill of the Senate Committee on Education, and approved by the State Superintendent; but the changes therein made are all in furtherance of the resolutions passed and the suggestions made at the recent convention of county superintendents held in San Francisco.

The bill includes an amendment to the general school law, whereby the matter of the salary of the county superintendent is to be fixed by the board of supervisors, the minimum salary to be twenty-five dollars for each school district, excluding traveling expenses. The bill is so drawn as to be constitutional, and we believe it will pass both houses.

We hope that in another issue of the JOURNAL we may be able to congratulate the county superintendents of the State on this recognition—tardy though it be—of one of the most responsible, most difficult positions in the gift of the people. The JOURNAL may, perhaps, be permitted to take some credit to itself for the outcome of this struggle. Almost from the issue of its first number, in 1877, it has urged the high importance of the position, has advocated placing therein our ablest educators, and has contended for fair remuneration for honest, thorough work.

THE PROCEEDINGS OF THE STATE ASSOCIATION OF TEACHERS.

WHEN the State Association adjourned, on the 30th of last December, it was quite generally understood that the proceedings, list of members attending, etc., were to be published in full, as in previous years, as a supplement

to the JOURNAL. Quite a number of teachers then subscribed for copies, paying their money to a committee, who turned it over to the editor of the JOURNAL. He in turn transferred it to Mr. Wm. White, president of the association for 1883.

After adjournment, the executive committee communicated with one another in regard to publication, but there was soon developed what in California is ordinarily termed "a hitch." The president and secretary for 1883 are perfectly willing to publish the proceedings for 1882—O, yes!—but not with the funds collected at the 1882 meeting; those must be reserved against all possible contingencies for the meeting of 1883.

This, in brief, is why the JOURNAL for this month does not contain forty-eight extra pages (the cost of one-half of which we offered personally to defray), containing a full report of the proceedings of the session of 1882, together with the papers there read.

NORMAL SCHOOL NOTES.

THE State Normal School at San Jose opened this term with a larger attendance than ever before in its history. There are 550 students in the regular classes: 163 seniors, of whom 97 will graduate in June, and 66 in December next. These are the largest classes ever graduated.

Miss Titus is absent at the East on account of ill health. Miss Oakley of San Francisco is filling her place.

OFFICIAL DEPARTMENT.

SUPERINTENDENT WILLIAM T. WELCKER, EDITOR.

Subdivision 15 of section 1617 of the Political Code does not give power to the trustees of one district to receive children from another district, when contrary to the wishes of the latter. "To make arrangements with" necessarily implies mutual assent.

In my judgment, the language of section 1775 of the Political Code would include the normal class of the Girls' High School of San Francisco. The words "California normal schools" would seem to apply to all normal schools sustained by the public funds within the State; such as the one referred to above, the one at San Jose, and the one at Los Angeles, and any that in future may be established by authority of the State. Previous decisions of this office have been to the same effect.

The law which bears upon the questions asked in your letter of the 26th instant is to be found in sections 1580, 1581, and 1582 of the Political Code. Upon the formation of a new district by the division of a district already existing, the first duty of the county superintendent of schools is to pay off all of the debts

of the old district. Having fully performed this duty, he is ready to perform his next, which, in accordance with the terms of section 1582 of the Political Code, consists in determining the number of census children who were in each district on the day that school opened in the newly formed district, and in apportioning in proportion to the number of census children then in each district to each district the money which was on hand on that day to the credit of the old district.

If since the day upon which school was opened in the new district money has been placed to the credit of the old district, this money must be apportioned to the two districts in a similar manner.

From the manner in which the word "may" is used in the last part of section 1582 of the Political Code, it would seem that the superintendent may make the apportionment according to the last report of the Census Marshal, if he feels satisfied that the number of census children in the districts was the same at the date upon which school opened in the new district that it was when the census was taken. If the superintendent feels satisfied that the Census Marshal's last report would not be a correct statement of the number of census children for the day upon which school opened in the new district, he may order another census to be taken. In other words, it is a matter left to his sound discretion.

Under section 1712 of the Political Code, I think that portion of the library fund can be expended with propriety in the purchase of an organ.

Your note of the 10th instant has just come to hand. Subdivision 10 of section 1617, Political Code, ordains that district trustees must enforce in schools the course of study and the use of text-books prescribed and adopted by the proper authority (county and city boards of education). In section 1712 we find that they "must expend the library fund" and some other moneys "in the purchase of school apparatus and *books for a school library*"; while the fourth subdivision of section 1771 gives power to the county board of education to "*adopt* a list of books for district school libraries." This collocation of the laws makes it evident that district trustees have power to purchase only the books, a list whereof has been *adopted* by the county board of education.

Under section 1704 of the Political Code, no person is eligible to teach in any public school in this State, or to receive a certificate to teach, who has not attained the age of eighteen years. It would be contrary to the intent of the law to grant a certificate to a person after that person had attained the age of majority upon an examination which had taken place before that age had been reached. If such a proceeding were permitted, the examination might take place at any period of time prior to the time of granting the certificate.

The attention of the county boards of education, and of county superintendents, is called to the language of section 1521 of the Political Code. That section says that "every application for an educational diploma must be accompanied

by a *certified copy of a resolution* adopted by a local or county board of education recommending that the same be granted."

There should, therefore, be on the application, or annexed to the same, a certificate by the clerk of the board of education, in the following words: "I hereby certify the foregoing to be a full, true, and correct copy of a resolution passed by the board of education of the county of _____ on the day of _____ 188 .". And to this certificate the seal of the board of education should be attached.

As soon as new blank applications are printed by this office, the foregoing certificate will be incorporated in the body of the blank.

OPINIONS OF THE ATTORNEY-GENERAL.

Article XI., section 9, of the Constitution provides that the salary of a county officer cannot be increased during his term of office, and those officers now holding cannot receive the benefit of any such increase, should the legislature see fit to provide it.

Very respectfully,

E. C. MARSHALL, Attorney-General.

The following is a letter sent to the office of Superintendent of Public Instruction. The Attorney-General's decision on the question of law therein contained follows after the letter.

"HONORABLE SUPERINTENDENT OF PUBLIC INSTRUCTION.

"DEAR SIR—The clerk of this district told me to close school December 22nd, 1882, for the holidays, and reopen school on January 2nd, 1883. I closed school, went to San Francisco and attended the State Teachers' Association, intending to return Sunday, but was delayed by the storm until Tuesday morning in San Francisco, and at Sacramento until 7 o'clock P. M., arriving in — in the night. I should have proceeded at once to the district, but obeyed the orders of the clerk of the district, and remained in town until Wednesday. He came for me about noon, and said "it was no use to commence school until Monday"; then changed his mind, saying "commence to morrow." Several times he altered his mind this way, but finally decided to open Monday, 8th instant. I was anxious to open school as I was in the district, and had telegraphed Monday morning that I should come Tuesday ready for school Wednesday, which I should, had I not obeyed his orders and remained in — over night. I should like you to say how many days are my loss by law, and how many are the loss of the district."

ATTORNEY-GENERAL'S DECISION.

HON. WM. T. WELCKER—*Dear Sir*: In re — there seems to me to be no question of law. If the clerk of the board of trustees was authorized by the board (or even if not authorized by the board) to fix the 8th of January for opening the school, and did so fix the day for reopening the school, then the loss of time falls on the district, — which is a question of fact; but if the teacher absented herself, the loss falls on her.

Respectfully,

E. C. MARSHALL, Attorney-General.

SCIENCE RECORD.

THIS RECORD is under the editorial charge of Prof. J. B. MCCHESENEY, to whom all communications in reference thereto must be addressed.

IN THE early stages of typhoid fever, Dr. Guillaſſe of the French Navy has administered coffee with marked success. Three tablespoonfuls are given adults every two hours, alternating with one or two teaspoonfuls of claret or Burgundy wine. A beneficial result is immediately apparent. A little lemonade or citrate of magnesia is also administered daily, and after some time quinine is recommended.

DR. SIEMENS thinks that before many years have passed ships will be made of such tough "mild steel" that when they strike upon a rock they will not spring a leak, but only "bulge several feet." These ships will be driven by electricity or gas, for in the opinion of the learned president of the British Association, the steam engine is doomed. Raw coal is to disappear as a fuel, and then science will have banished "the black pall of smoke that hangs over our great cities, and restore to them pure air, bright sunshine, and blue skies."

A NEW VARIETY OF GLASS.—A chemist of Vienna has invented a glass which contains no silicic acid, potash, soda, lime, or borax. In appearance it is equal to the common crystal, but more brilliant; it is transparent, white, and clear, and can be cut and polished. It is insoluble in water, and is not attacked by fluoric acid; but it can be corroded by hydrochloric and nitric acid. When in a state of fusion, it adheres to iron, bronze, and zinc.

THE GROWTH OF CORAL.—After a cruise of a few months in the South Pacific, a French man-of-war was recently found to have specimens of living coral growing upon her hull. This interesting discovery has thrown some light on the question of the rapidity of growth of corals. The evidence tends to show that the vessel on passing a reef of the Gambier Islands, against which it rubbed, had picked up a young fungia, which adhered to the sheathing of the ship, and grew to the size and weight it had when observed—a diameter of 9 inches, and a weight of $2\frac{1}{2}$ pounds—in nine weeks.

TO IMITATE black ebony, first wet the wood with a solution of logwood and copperas boiled together, and laid on hot. For this purpose two ounces of logwood chips with one and one-half ounces of copperas to a quart of water will be required. When the work has become dry, wet the surface again with a mixture of vinegar and steel filings. This mixture may be made by dissolving two ounces of steel filings in one-half pint of vinegar. When the work has become dry again, sand paper down until quite smooth; then oil and fill in with powdered drop-black mixed in the filler. Work to be ebonized should be smooth and free from holes, etc. The work may receive a light coat of quick-drying varnish, and then be rubbed with finely pulverized pumice stone and linseed oil until very smooth.

TREE BURIAL IN NEW ZEALAND.—The recent fall of an enormous puketea tree near Opotiki, New Zealand, disclosed the fact that the hollow interior from the roots to the first fork, about forty-five feet from the ground, had been filled with human bodies. A confused heap of skeletons burst out of the butt of the tree when it fell. A local paper says: "A more extraordinary sight than this monarch of the forest lying prone and discharging a perfect hecatomb of human skeletons can scarcely be conceived. Some are nearly perfect, while others are mixed up in a chaotic mass of heads, hands, feet, and arms, indiscriminately. All the Maoris here seem to have been quite unaware of this natural charnel house, and declare that it must have happened long before their own or their fathers' time. Indeed, the appearance of the tree fully justified the supposition that it must have been some hundreds of years since this novel family vault was filled with its ghastly occupants."

THE C. L. S. C.

This department is under the editorial charge of Mrs. M. H. FIELD, San Jose, to whom all communications relating thereto must be addressed.

THE Chautauquans have not been idle since the pleasant, crowded days at Monterey, of which an account has appeared in these pages. Early in October local circles were formed in all the large towns and many of the small ones all over the Pacific coast, to say nothing of the numerous families living in solitary places wherein one or more of the household follow the prescribed readings, and make the best and most faithful of Chautauquans because of tranquil and uninterrupted lives. The records of the society show a steady and healthful growth. Every week brings to the secretary reports of new circles and of growing enthusiasm. In San Jose there are three flourishing circles, all keeping up with the required work, and holding weekly or fortnightly meetings; while a general meeting is held once a month, which is largely attended. At this monthly meeting there have been many excellent lectures and papers presented, some of which we hope to lay before our readers.

In San Francisco and Oakland there are large and interesting circles: one in San Francisco, the "More" circle, has nineteen members; and one in Oakland thirty-three. At Merced there is a lively little circle, led by J. W. Knox, Esq., with seventeen members. Santa Barbara has a circle of fifteen members, and Astoria, Oregon, has one of sixteen. Thus the electric chain stretches all along the coast, and its swift current magnetizes many a life which without it would be dull indeed.

The studies for the fall and winter have been in Greek History and Literature, and have awakened unusual interest. It is safe to say that the Iliad and Odyssey have found more readers this winter on our coast than ever before. Every translation has been in demand, and blind old Homer has found hundreds of new admirers. It is of course to be regretted that more cannot read the original Greek, but such translations as Bryant's furnish an excellent substitute, and quite revive the heroic age. The great tragedies of Sophocles and Eschylus have also been widely read, so that quite a classic tone has pervaded society, and a new and delightful impetus has been given to historical study.

Geology has been the theme of scientific study, but has occupied a comparatively small share of attention. As a whole, the winter has been spent among the Greeks, though our national organ, "The Chautauquan," has had a series of articles on Scandinavian History and Literature, which have been read with interest.

Let no one hesitate to join the C. L. S. C. at any time, for new books are taken up and new subjects treated in the Chautauquan with almost every new month. The most cordial invitation is extended to all.

THE KINDERGARTEN.

This department is under the editorial charge of MRS. SARAH B. COOPER, to whom all communications relating thereto must be addressed.

THE FREE KINDERGARTEN—ITS PROGRESS AND OUTLOOK.

A THOUGHTFUL and philosophical writer has said that at every great renaissance, or period of new birth of the world in real progress, man has gone to childhood for inspiration and instruction. The great Teacher himself took a little child as the object lesson to teach of his coming kingdom; and so whenever the world has looked child-ward, it has been "lifted up and strengthened." This is exactly what the kindergarten does; it begins with the study of the real nature and wants of the child.

It is the design of the present article to refer briefly to the history of the kindergarten in San Francisco, and make a few suggestions in regard to the establishment of kindergartens in the smaller towns and villages. On July 23rd, 1878, the San Francisco Free Kindergarten Society was first organized, under the presidency of Judge Solomon Heydenfeldt, with a fine board of trustees and other officers. Miss Kate Smith, a pupil of Miss Emma Marwedel, was secured as teacher, and her phenomenal success proved her not only a thoroughly trained kindergartner, but a born teacher. The Silver Street Kindergarten soon became one of the "features" of San Francisco. About three months after it was opened, Professor John Swett, who never fails to see a good thing in the line of educational progress, called my attention to this work, and asked me to visit the school. I did so, and was profoundly impressed with its value and import. It seemed to me to offer a hopeful solution to the knotty problem of hoodlumism. I sought and secured the privilege of writing a series of articles for the daily press, looking to the establishment of free kindergartens in the city. My own Bible class was stirred up to the importance of the work, and in October, 1879, the Jackson Street Free Kindergarten Association opened a second kindergarten, at 116 Jackson Street.

Through the efficient aid of Professor Swett and the normal pupils a third class was formed, and subsequently adopted by the school department. The Young Men's Christian Association started the fourth on Minna Street. The fifth was opened on Shipley Street, under the auspices of Mrs. Story. The sixth was organized and carried on by the First Presbyterian Church of Oakland. The seventh was started by the Jackson Street Kindergarten Association, at 512 Union Street, followed quickly by another, the eighth, in the same place, which was adopted by the school board. The ninth was opened on the corner of Market and Seventh Streets by the Silver Street Association, and a second class, making the tenth and eleventh, were also opened at 64 Silver Street by a new organization, of which Mrs. Kate Smith Wiggin is the energizing power. There are now two large classes at Silver Street. The twelfth kindergarten was organized by St. Luke's Parish, in Pixley Hall, at the

corner of Polk and Pacific Streets. There are kindergartens connected with the Boys' and Girls' Aid Society, the Protection and Relief, the Protestant Orphan Asylum, and the Little Sisters' Infant Shelter. The seventeenth free kindergarten is at the corner of Bartlett and Twenty-second Streets, it being under the care of the Jackson Street Association; this last-named society now has three free kindergartens in charge.

There are over one thousand children enrolled in these seventeen kindergartens, all under six years of age, some of them scarcely three years old. This is but as a drop in the bucket, when we see the swarms of children that have to be turned away who seek admission to our kindergartens, and who should be saved from the perils of the street.

HOPEFUL PROGRESS.

The children in all these kindergartens make marked progress, and in some cases the improvement is wonderful. The testimony of the inhabitants of the neighborhoods where they exist is unanimous in regard to the beneficial results, which are in some instances considered remarkable. The most destitute neighborhoods are selected in opening a kindergarten. The teachers are the most hard-worked and self-sacrificing of young women. Their labors do not end in the school-room. Homes are visited, and the results of this double labor are manifest in better-conditioned households and more cleanly children.

HOW TO START A KINDERGARTEN.

Scores of letters are received from all parts of the coast making inquiry as to the mode of starting a free kindergarten. The first condition requisite to success is, to be sure of a competent, thoroughly-trained, and devoted kindergartner to take charge of the children. Without this there can be no success. The next thing is, to have an assured income from dependable subscriptions. It will not do to trust to the enthusiasm of a few ardent supporters who move in the establishment of the work. There must be an assured financial basis to start with, else the burden becomes heavy upon those whose energies are needed in other directions as the work progresses. Pleasant, sunny, cheery, well-equipped rooms are an indispensable requisite to the best results. They should be on the first floor. There should be a good playground.

Space forbids further detail at the present time, but any who desire fuller information can send to my address for a copy of the Third Annual Report of the Jackson Street Kindergarten Association, which contains a carefully prepared summary of detail, by Mrs. Kate Smith Wiggin, and which would be of service to the uninitiated in this system of education. We are looking forward to the day when this beneficent work shall become a part of the public-school system of this State and of the entire country. That day, we believe, is not far off.

SARAH B. COOPER.

THE PUPILS' CORNER.

"THE OLD WOMAN WHO LIVED IN A SHOE." *

A CHRISTMAS PLAY FOR LITTLE FOLK.

SCENE I.—A GROVE. In the distance the toe of an enormous boot.

Enter MOTHER MADGE, followed by NINA, JACK, SPITFIRE, TOM FYE, and a throng of children. The children sing plaintively.

O dear ! we are tired and hungry and cold,
 And poor Mother Madge is both weary and old.
 We would work if we could—give us something to do,
 If it's only to dance a cotillon for you.

We'll sing for a supper, we'll skip and we'll dance,
 And gayly for supper we'll hop and we'll prance ;
 For poor Mother Madge is both weary and old,
 And all of us children are hungry and cold.

MOTHER MADGE (in a hoarse and croaking voice, her cap ruffles shaking, and her crutch tapping the ground impatiently).

Hush ! such nonsense ! children, do. I will make you sing a tune,
 Who will heed such chits as you ? If you are not silent soon !

(Then turning to the audience, she speaks with a whine.)

Pity, kind friends. Was there ever before
 A woman like me in so dreadful a plight ?
 All these poor children were left at my door.
 Their spirits are high, but their poor feet are sore.
 Please won't you help us to-night ?

MOTHER MADGE (soliloquizing, or talking to herself). I've always thought that sooner or later their fathers and mothers and uncles and aunts and cousins would come home, and bring me that pot of gold that lies at the far-away end of the rainbow. For indeed I've been good to them. When I've had plenty I've shared it with them, and growing children do have tremendous appetites. They have had a whipping now and then. You can't bring up boys without it ; and as for Spitfire, poor child, if it wasn't for my rod she'd laugh in my very face, and hide my best cap, if she took the fancy. We got along well enough till the fire that burned up my house, and the robbers that plundered my purse, and the grasshoppers that ate up my crops, came all in a week. Now, how can I keep a whole orphan asylum without bed or board, porridge or potatoes ? And Nina's so pretty, and Jack's so brave ! I love them, and am proud of them ; but O, what a charge for a poor worn-out old woman ! Dearie me ! Dearie me !

[She throws her apron over her head, rocks herself to and fro as she sits in an old splint-bottom chair, which has been left in the grove by a picnic party, and sobs aloud. At this the CHILDREN all cry in chorus. MOTHER MADGE jumps up and flourishes a switch.]

* As any number of children may take part in this play, it is well adapted for school exhibitions. MOTHER MADGE should have a round, rosy face, to contrast with her assumed character of a decrepit old woman. The shoe may be made of pasteboard, and covered with black muslin.

COSTUMES.—MOTHER MADGE, in scarlet petticoat, brocaded over-dress, snowy cap, and embroidered apron ; high-heeled slippers, reticule, and rod at her side. JACK wears knee-breeches, blouse, cap, and long ostrich feather. NINA, quaint dress, in rich colors. The CHILDREN, prettily dressed. KING, in velvet and gold, with crown and scepter. GIANT. A young gentleman with a deep voice should take this part. The GIANT'S height may be added to his holding by a very large broom, which may be draped by a full military cloak or an old-fashioned waterproof, and crowned with a fireman's hat. The GIANT must keep well in the shadow. He might even remain invisible in case there should be any great difficulty in arranging his height and costume.

Behave yourselves, children,
 For I am a witch,
 And I've got a great switch.
 There, Tommy, there Spitfire, see
 (Striking the two lightly)
 What you get when you fret,
 And make fun of my pet.
 Stop shouting, you children, at me.

[They all wipe their eyes, and JACK disappears; while NINA flies around, kissing one child, coaxing another, and hiding MOTHER MADGE's switch behind the chair.]

MOTHER MADGE. I seem to be cross, but I am only at my wits' end. How ever shall I feed and clothe and shelter such a crowd of little ones any longer? Even if somebody helps me now, what are we to do in future?

JACK (returning). I am going on an expedition. I may find a deserted cabin, where we may spend the night comfortably. Now, Mother Madge, take a nap; and, Nina, have those children any handkerchiefs?

[Exit JACK, while NINA, taking a large handkerchief from MOTHER MADGE's bag, wipes the faces of the little ones.]

"I have so many children, I don't know what to do," croons the old woman in her sleep.

Enter JACK (wildly excited). Mother Madge, *what* do you think? I have discovered a place where we may all stay. Nothing less than a tremendous shoe, which looks as though it might belong to an immense giant.

TOM FYE (scornfully). Ho! How can we eat a shoe?

JACK. Be still, Tom.

SPITFIRE. More likely the giant who owns the shoe will come along and eat *us*.

TOM. *Devour us*. Of course he will!

JACK. Mother Madge, there is your rod. It has fallen under your chair. Please shake it at them, or something.

(The CHILDREN sing in chorus.)

We're in a land of giants; But Jack will make a castle
 We don't know what to do. Of some old giant's shoe.

NINA. Brother, let us all take hold of the shoe and drag it here, where we can look at it.

[Exit CHILDREN. They return, dragging the shoe, and place it at the back of the stage.]

ALL. Hurrah! Here it is!

MOTHER MADGE. O, Grandmother Goose, what a huge foot!

PITFIRE. I could hide in the toe.

NINA. We might all live in it. It is big enough.

MOTHER MADGE. So it is, and we *will* live in it. We will tear it down on the side and make a door, and you, my children, shall stay within while I keep guard without.

JACK. The giant may return.

MOTHER MADGE. Little danger. Probably it hurts his corns. I think he has abandoned it, and here in the grove he will never think of looking for it. Giants are stupid creatures.

[The CHILDREN climb over and into it, SPITFIRE making a pirouette, on tiptoe, as she gets ready to spring over the top. Presently her curly head is seen peeping out of a hole she has made in the toe.]

JACK. For shame, Spitfire! Don't make holes on purpose.

MOTHER MADGE. Not in our only shelter.

JACK (holding up a large placard he finds in the shoe) sings.

Here in his number: Wears, as I live,
 Old Giant Macomber A good 365.

JACK hangs it up, saying: When our ship comes in, they'll know where to deliver our goods.

MOTHER MADGE. Now, my chicks, cuddle up closely and go to sleep. I want to reflect. I think I can find you a breakfast. To-morrow will be Christmas.

(CHILDREN sing.)

Will to-morrow be Christmas? How hang up our stockings
Pray what shall we do? In such an old shoe?

(They all begin to cry.)

(MOTHER MADGE seizes SPITFIRE, and gives her a shake. The others scramble into their places as fast as they can, singing.)

Don't, don't whip us; we'll be good.

[Curtain falls on Scene I.]

SCENE II.—Stage rather dark. Shoe seen in the shadow. JACK and NINA in the foreground; the latter leaning against her brother, and fast asleep.

JACK. Poor little Nina! She was so very tired. Heigh-ho! I am the same, but I will keep awake until Mother Madge comes back. I must not sleep on guard.

NINA (yawning). I am not asleep, Jack dear. I only closed my eyes for a second. I wish Mother Madge was here. I shiver with dread lest the giant should return.

JACK. Do not fear; I will be your valiant defender. If he comes (Jack rises and flourishes his arm), I will say, "Avaunt! base craven; this shoe is mine."

NINA. But that would not be true, Jack.

JACK. Why, I found it, and our family fills it. If he attempted to take it from us, I would kill him.

(CHILDREN swarm out of the shoe, singing.)

Jack would kill the giant; Jack would kill the giant—
Jack is very strong; Thus we sing our song.

[At this moment they discover the placard on NINA's back, and shout with laughter.

JACK attempts to punish TOM for having put it on, and the others take his part. In the squabble the shoe is upset, and in the confusion MOTHER MADGE re-enters.]

MOTHER MADGE. Hoity-toity! Is this the way you perform when I go out, quarreling and pulling the house down about your ears? Jack, set it up, while I chastise these naughty children. (She flies around, brandishing her rod. When order is restored she says:) Now, Nina and Jack, the time has come to tell you an important secret. Many moons ago your father, King Thunderbolt, was summoned away to a great war. He marched off with a grand retinue, colors flying, drums beating, and bugles sounding; and before he went he gave me, an old retainer of the court, you, his darling children, to care for, and also his little nieces and nephews, children of the chiefs who went with him. I had a large and pleasant house, and plenty of gold and silver, and you know how carefully I have watched over my charge till yesterday, when we were driven away by a cruel band of rebels and robbers. It is well they did not dream whose children you were, or they would have killed you.

JACK. But King Thunderbolt and his army—will they never return?

MOTHER MADGE. Alas! I fear they have all perished.

(Chorus from the Shoe.)

O never lose heart when the days are so dark;
Through the storm and the rain there is help coming. Hark!
And, kind Mother Madge, you must never be blue,
For plenty of sunshine will come to the shoe.

NINA. Hush! children; the ground shakes as if with an earthquake. What can be the matter?

[A low rumbling is heard, and a massive tread comes nearer. B—r—r—r—r. Burrrrr. Burrrrr.]

CHILDREN (shrinking in terror). O dear! the giant! the giant!

NINA (flying into Jack's arms). Dear Jack, he will crush us all under his mighty feet.

MOTHER MADGE (bravely). No, children; giants are ponderous creatures, but they are kind. I should be much more afraid of a spiteful dwarf.

JACK. I suppose he wants to have his shoe half-soleed.

TOM FVE. In that case, we are all sold.

NINA. Puns are vulgar; and, O Tom! how can you pun at such a moment?

INVISIBLE GIANT (groaning fearfully). I certainly left my best shoe here, I remember. It pinched a little, and I threw it off after dinner when I lay down for a nap. It must have rolled farther than I thought. How I do hate new shoes! The fairies sell so few nowadays, and leather is not what it used to be when I was a boy. Burrrr!

JACK. Just hear that!

SPITFIRE (with a giggle). When he was a boy! I thought giants were always as big as a house, even when they were little.

GIANT. Well, I'll find that shoe, as sure as my name is Gruff. I believe it's over in that grove. I'm going to see. Am I to go flippety-flop, hippety-hop, all my life for the want of it? Not I.

[GIANT approaches, with slow and heavy tread, rolling as he walks. He sees the shoe, and catches it, giving a shake, which tumbles all the children out in a bunch. The GIANT drops the shoe, and raises both hands in dismay.]

GIANT. Well, what on earth! mice, hares, robins, little fish, BABIES! What have we here? Babies, on my honor, actually asleep, a crowd of 'em, in my poor old shoe. Horrors! They're going to cry! I cannot stand children's crying. It upsets my nerves, and gives me a headache. Will somebody, not a baby, tell me what this means?

NINA (waving back MOTHER MADGE). O Giant Gruff, you dear, good, darling, beautiful giant! if you'll forgive us for taking such a liberty, we'll never, never do so again. We saw the shoe—such a pretty one too!—and we thought it would not be wrong, poor mother and my brothers and sisters were so tired, and so we borrowed it for a little while; but we'll draw it back for you again, dear giant.

GIANT. Humph! you're a little lady, if ever there was one. It's hard for me to go barefoot though, especially on one foot. But I'll tell you what: I'll *lend* you the shoe while I take another nap, if that baby (pointing to Spitfire) will come here and give me a kiss.

SPITFIRE (pouting). I'm not a baby, but I'll oblige you. Only how am I to climb to your cheeks without a step-ladder?

GIANT. Ha! ha! ha! Why, I'll stoop down and kiss you, little Spitfire. Good by.

GIANT withdraws. In the distance are heard horns, drums, and trumpets. CHILDREN, scrambling into the shoe, sing softly.)

We are ever so sleepy, we're hungry and sad,
And so we will sing, and we'll try to be glad;
Though poor Mother Madge is so awfully blue,
And soon we must leave the dear giant's nice shoe.

NINA. For pity's sake, children, be silent. The music is drawing nearer. Here comes a splendid gentleman in a purple velvet coat, faced with gold lace.

[MOTHER MADGE, stepping in front of the shoe (out of which the children flutter like a throng of birds), and extending her skirts, drops a low courtesy.]

(Enter the KING. His men remain visible at the edge of the grove, and he advances alone.)

KING. Why, madam, what may this be? Who are you, and what sort of an establishment is this?

MOTHER MADGE. Generous sire, they are my children, and I will die rather than see a hair of their heads hurt.

KING. Who wants to hurt them? Not my friend, good Giant Gruff, who has just gone to sleep on the slope of the hill around which we came. Upon my word, your house looks as if it might be the poor giant's lost shoe over which he was lamenting. We

heard his groans, but our music put him to sleep. Nobody will hurt you, good woman, but I want your children to sing for me merrily.

MOTHER MADGE. You hear, children; you are to sing merrily now for his Majesty. Be quick, or I'll have to get my rod.

CHILDREN. Merrily, cheerily, tra la la !
Here is a king come home from war.
Merrily, cheerily we will sing—
Supper at last the King will bring.

MOTHER MADGE. Pray pardon them, sire. They are almost starved. We have been plundered and robbed, and our home was destroyed—

And the best we could do was to live in a shoe.

KING. Whose children are these?

MOTHER MADGE. King Thunderbolt, who went far away to the wars, was the father of Nina and Jack; and their little cousins too are all of royal blood.

KING. And are *you*, good dame, my faithful Madge, and you do not know me! I am Thunderbolt!

MOTHER MADGE (courtesying low). Pardon me; for indeed, my King, you are changed. Here are your children. Here is Prince Jack; there is the Princess Nina.

(The two step forward and kiss their father's hand. He lays his hand on JACK's head and kisses NINA. The other children rush forward crying, "Papa, papa! Uncle Thunderbolt! welcome home!")

KING. Enough to drive one crazy. How have you ever survived?

MOTHER MADGE (gayly).

O I've rocked them, and kissed them, and called them "My dear,"
And watched them with pleasure, sire, year after year;
And now and then given them milk, broth, and bread,
And whipped them all soundly, and sent them to bed.

KING. Mother Madge, you are a little general. Now, then, for supper in camp, and these famished appetites shall be satisfied.

[Curtain falls on Scene II.]

SCENE III.—KING and MOTHER MADGE seated near each other, and surrounded by courtiers. Music of instruments. CHILDREN dance merrily to a light measure. At a signal they pause, and each, holding the hand of his partner, sings.

No more we are tired and hungry and cold;
Our hearts are as light as our footsteps are bold.
The King has come home, and we bend at his feet;
We love him, we serve him—our good King we greet.

KING. Now, Jack and Nina, on this Christmas day
Be good, and with your kind protector stay.
Ere long my palace shall reopened be,
And there you all shall come and live with me.
And on the wall we'll paint a mighty shoe,
Like that which yesterday your praises drew.
You, Jack, shall learn the ways of martial men,
And Nina be a Queen's sweet child again;
And all the little ones be kind and true;
And don't forget the Giant's friendly shoe.

Parting Song. We'll all be good, we'll all be kind,
And Mother Madge we all will mind.
The only thing we wish to-day
Is that her rod were thrown away.

THE MEETING OF THE STATE TEACHERS' ASSOCIATION.

THE members of the California State Association of Teachers assembled in the hall of the Young Men's Christian Association, December 27th, President J. B. McChesney in the chair. There were present nearly one hundred and seventy members, including a large proportion of the representative educators of the State. From San Francisco there were ex-Supts. James Denman, and Azro L. Mann, Principal Blackburn of the High School, Prof. White, Principals Laura T. Fowler, Aurelia Griffith, Kate Kennedy, George Brown, Jean Parker, Philip Prior, Agnes Manning, H. C. Kinne, Deputy Supts. Joseph O'Connor and D. C. Stone, Messrs. Selden Sturges, C. H. Ham, A. H. MacDonald, Mrs. L. K. Burke, Misses M. M. Stone and Nellie Haskell; from the State, Prof. W. W. Anderson of Berkeley, Principals Garlick, Black, Fowler, Garin, Fuller, Keep, Fisher, Langdan, and Sullivan, of Oakland and Alameda; Kellogg, C. V. Smith, and E. Welsh, of Shasta; Firehammer of Placer; Wells, T. E. Kennedy, Principal Chas. H. Allen, and Prof. More, of Santa Clara; Prof. S. D. Waterman and S. V. Pritchard, of San Joaquin; J. W. Linscott, G. W. Hursch, of Santa Cruz; Supt. H. Wallace of Monterey; W. B. Turner, Supt. Hartley, Mrs. G. P. Hartley, of San Mateo; and a large number of others.

The association was called to order by President McChesney; Secretary William White read the minutes of the meeting of 1881. On motion, Mrs. G. P. Hartley of San Mateo and Prof. C. M. Kellogg of Redding were elected assistant secretaries.

A committee of six, consisting of Profs. Mann, Welcker, Campbell, Denman, McChesney, and Lyser, were appointed to wait on Governor Perkins and Governor-elect Stoneman, and invite them to address the association.

The annual address of President McChesney was an interesting half-hour paper, devoted to a discussion of the functions of professional organizations like the State Association. It will appear in an early number of the JOURNAL.

Supt. J. L. Shearer of Napa presented an able paper on "Our School Work." We expect a *resumé* of this paper for our columns. Papers were read during the session by Prof. Cook, of the State University, on "English in Our Public Schools"; by Mrs. S. B. Cooper, on "Shall the Kindergarten be a Part of the Public School System of the State?"; by ex-Supt. A. L. Mann, on "Arnold of Rugby"; on "Graded Schools," by Prof. Ira More.

An extended and able address on "Physical, Intellectual, and Moral Training" was made by State Supt. Welcker, also brief addresses by Governor Stoneman and Supt Campbell. One of the features of the meeting of this year, was the discussions; and the general interest manifested in all the proceedings, not only by teachers, but by the press and people.

The subjects discussed were, "A Proper Course of Study for Our Schools," "Free Text-books," "State Publication of Text-books," "Home and School Study." The following teachers participated in the discussions: Supts. Moulder, Denman, Mann, Messrs. Blackburn, Kinne, Waterman, Wallace, Thorn, Stone, Towle, and Misses Kennedy and Haskell.

The president announced as a "Committee on Spelling Reform," to prepare a report for the next annual convention, the following members: Albert Lyser, A. L. Mann, James Denman, Kate Kennedy, T. O. Crawford, C. B. Towle, and Mrs. Varney.

The following officers were elected for the ensuing year:

President, William White of San Francisco; vice-presidents, J. W. Hinton of Los Angeles, C. C. Smyth of Sonoma, and Joseph O'Connor of San Francisco; secretary, Philip Prior of San Francisco; treasurer, Mrs. Aurelia Griffith of San Francisco; executive committee, J. B. McChesney, William White, Philip Prior, James Denman, W. W. Anderson, G. P. Hartley, C. W. Childs, F. M. Campbell, and S. D. Waterman.

After presenting ex-Supt. F. M. Campbell with a handsome bronze clock, as a token of esteem and appreciation from the teachers of the State, the session of 1882 of the State Association came to an end.

BOOK NOTICES.

THE CRITTENDEN COMMERCIAL ARITHMETIC AND BUSINESS MANUAL. Designed for use in schools, academies, commercial colleges, and counting houses. By John Groesbeck, principal of the Crittenden Commercial College, and author of Practical Book-keeping. New revised and enlarged edition. Philadelphia: Eldredge & Bro. Price \$1.35. To teachers for examination, \$1.

This is a revised and greatly improved edition of a well-known and popular book on business operations. It is an eminently practical work, omitting puzzles, and dealing with the principles of commercial operations in a clear and easily understood manner. Special attention is given to short methods used in business calculations. We recommend the book to the attention of teachers.

PRIMARY HELPS. Being No. 1 of a new series of Kindergarten Manuals. By W. N. Hailmann, A. M., editor of *The Kindergarten Messenger* and *The New Education*. Large 8vo, pp. 58, with 15 full-page illustrations. Syracuse: C. W. Bardeen. 75 cents.

Professor Hailmann is undoubtedly the best exponent of kindergarten principles in this country. Thoroughly pervaded with a spirit of Froebel, he is also a practical teacher, a member of the board of education in Detroit, and a leader in educational conventions. It has been his main purpose for years to harmonize all who are engaged in the work, and especially to establish a connection between the kindergarten and the public schools.

The book before us is the first fruits of his efforts in this direction. It makes the principles of Froebel applicable to primary schools. Take, for instance, chapter 4, on the use of sticks in teaching arithmetic. The general principles here laid down have been applied in many public schools, but the method has never been thoroughly systematized and perfected. There is no primary teacher who would not profit by the careful study of this book; there is no teacher who could not herself use in her school very many of the appliances here suggested. We welcome the volume as a

first step in a needed direction, and we bespeak for it a sale which shall encourage the author to continue and complete the series.

LITERARY NOTES.

The February number of the *North American Review* contains an article on The Experiment of Universal Suffrage, by Prof. Alexander Winchell; a discussion of The Revision of Creeds, by clergymen representing six evangelical denominations; a paper entitled The Decay of Protestantism, by Bishop McQuaid; and a defense of the Standard Oil Monopoly, by Senator Camden.

From Houghton, Mifflin & Co. we are promised an entirely new edition of the works of Nathaniel Hawthorne, from new electrotypes plates, with introductory notes by George P. Lathrop. In twelve volumes, crown octavo, gilt top; with an original full-page etching and a new vignette wood-cut each volume, and an excellent new steel portrait Hawthorne. Price of each volume, \$2.

Education for January-February contains: Frontispiece, A. A. Miner, D. D., LL. D.; The True Order of Studies in Primary Instruction (concluded), by Z. Richards, A. M.; Country Schools, by Hon. J. P. Slade; The Necessity of Education for Working Women, by Evelyn Darling; Horace Mann, by Mrs. Mary Mann; The Study of Latin in Collegiate Education, by Prof. F. W. Kelsey; The Delsarte Philosophy of Expression, by Moses True Brown; What, How, and How Better, by Miss C. B. Sharpe; Friedrich Froebel, by E. P. Gould; The Industrial Home School of the D. C., by John Heitz; Why we should Study Philosophy, by Miss M. S. Handley; Glimpses of Work Abroad, by A. N. Everett; Editorial, A. A. Miner, D. D., LL. D.; Editorial Notes; Foreign Notes.

The midwinter (February) *Century*, containing the first chapters of Mr. Howells's new novel, *A Woman's Reason*, is out of print, and a new edition is on the press.

Mrs. Mary Mapes Dodge's story, Donald and Dorothy, which appeared last year as a serial story in *St. Nicholas*, and which has not yet been published in book form in this country, finds much favor in England. The *Court Journal* says: "It is very touching and very amusing. The adventures are varied, and highly characteristic of young American life. The story clears away many of the prejudices which exist with us against the freedom allowed to the juvenile population of the States by giving them the motive of the liberty accorded. Donald and Dorothy will do much to efface such prejudices, and reconcile us to many of the customs we have so long been accustomed to look upon as highly improper."



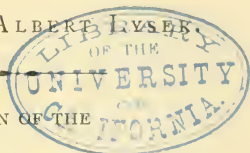


A. L. Mauer

THE PACIFIC SCHOOL JOURNAL.

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No. 3

EDUCATORS OF THE PACIFIC SLOPE.—V.

AZRO L. MANN.

THE barren, rocky hills away "Down East" have been prolific enough in stirring deeds and noble men. But posterity's most lasting obligation to New England will be for the grand scheme of universal education—without cost and without price—of which her sons and daughters have been the missionaries the whole world over.

The theory that universal suffrage requires universal education has its root in New England soil; and none among New England's sons have done more conscientious, broader, more effective work in carrying out the principle than the subject of our sketch, Azro L. Mann.

Prof. Mann was born in the year 1840, at Randolph, Norfolk County, Massachusetts. He is a distant relative of the greatest of American educators, Horace Mann, and in his career has exemplified the fact that ability "runs in families." Mr. Mann was educated in the public schools of Massachusetts until he entered Middlebury College, Vermont, from which institution he graduated with distinction in 1860. During his career in college he taught three winters in New England, and "boarded round."

On leaving college in 1860 he came to California, and began his career in this State as a teacher of a country school in Sutter County. He subsequently taught a country school in Yuba County. He taught in the town of Colusa one term, and was afterwards vice-principal of the grammar school in Marys-

ville for about three years. During his residence in Marysville, Mr. Mann read law in the office of Belcher & Belcher, and was about to apply for admission to the bar when he was attacked with a malarial disease, and forced to seek a more salubrious climate. He next taught one term as principal of the East Oakland Grammar School. In 1866 he came to San Francisco, and was appointed to a position in the Boys' Latin School. When this school was consolidated with the Boys' High School, he was placed at the head of the classical department, a position which he held till 1877.

In that year Prof. Mann was nominated for the city superintendency, and elected by a large majority, "running far ahead" of the average of his ticket. During the canvass he had the enthusiastic support of his pupils, and of the majority of the teachers of the department.

It is hardly necessary to say that his administration as superintendent was eminently successful. Many reforms were introduced, the most important being the abolition of the pernicious patronage system of appointing teachers, and the substitution therefor of a system of competitive examinations—true and early civil service reform.

At the expiration of his term of office, he was nominated for the State superintendency, by the New Constitution party, but with the rest of his ticket failed of election. In 1881 he was again elected professor of Latin and Greek in the San Francisco Boys' High School, a position he now holds.

Prof. Mann has contributed largely to the educational literature of the Pacific coast, much of his work possessing permanent value of the highest order. His official report as superintendent of San Francisco in 1878 contains some of the most valuable suggestions for school organization and management ever made in this State.

Prof. Mann was president of the State Teachers' Association for 1877-78, and delivered an able and thoughtful address on the "American Idea of Common Schools" before that body at its annual meeting at Sacramento. This address was published in the *JOURNAL*, and is considered by our leading educators as one of the ablest educational addresses ever delivered in the State. Before the students of the State University, at our State and county institutes, Prof. Mann has delivered many striking addresses. Among these, the most important are the following:

"Classical and Scientific Studies," State University and State Teachers' Association, San Francisco, 1877.

"American Idea of Common Schools," State Teachers' Association, Sacramento, 1878.

"Ungraded Schools," State Teachers' Association, Oakland, 1879.

"Horace Mann," State Teachers' Association, San Francisco, 1880.

"Arnold of Rugby," State Teachers Association, San Francisco, 1882.

Prof. Mann in personal appearance is retiring and modest. He is of middle height, rather slenderly built. He strikes the stranger as quiet and reserved; but when he speaks, his eyes sparkle, animation lights his countenance, he attracts and enchains the attention, and the hearer never fails to be impressed both with the originality of his views and the sincerity with which they are expressed.

In the prime of life, energetic, studious, and a thinker, he is thoroughly identified with the progress of our free-school system. The people of the Pacific slope may reasonably hope to enjoy the presence, for many years to come, and to participate in the fruits of the labors of Azro L. Mann.

A. L.

SEEKING A SCHOOL.

ONE of the most enjoyable things in the life of the average teacher is applying for a school. There are many ways of doing this very needful work, and for the benefit of the uninitiated I will explain a few of the more common customs by supposing you to be a schoolless teacher needing this advice. Before you make an application, consider whether you are more likely to succeed by applying personally or by letter. If (for a wonder) you are good-looking, pleasing in manner, a good judge of human nature (every one thinks he is that), and somewhat ready of thought and speech, go in person. Call at the trustees' houses, admire their children, praise the climate, sigh a little, and say, "I often wish I had a good wife, and could settle down," and look as if you were breaking the (I forget which) commandment, pat the dog on the head, lift the small urchin upon your knee, and if he looks stupid ask him if he wouldn't like to go to school to you—if a bright boy his answer might be unpleasant. If there is only one child don't forget that it looks like its father; if there are more than one, it doesn't matter whom they look like. If the man seems to swallow all your mild self-puffing, ask him if there isn't a church or Sunday-school near enough for the teacher to attend; also lament the good old ways and schools of old. If he seems to be a doubter, poke at him "Descent and Darwinism," "Huxley and Protoplasm." Say that you use very few text-books, but teach the pupils to think and reason. You can guess at his politics by the complexion of the newspaper he takes, and if he takes no paper at all, you can be certain of his political views. In short, to make a successful personal application, you need to have some of those admirable qualities possessed in their purity only by the trained politician.

In most cases you might better make application by letter. Here you have one great advantage—you can apply for a dozen schools at once, and among so many chances in the lottery you can hardly fail to draw one prize. As you will be more than twice as sure to get an answer by inclosing an addressed envelope, you can be both polite and saving. Recommendations and references are cheap and easy ways of puffing one's self, and as people still believe in them, send lots of them. They will seldom take the trouble to see whether they are true or not, and the presumption is all in your favor. If you have taught for many years, praise the value of experience; if you are a beginner, hint at the ruts that old teachers fall into.

Speak of the work done by former teachers, if you have known them, with that calm, indulgent sort of an air that marks a superior mind, and implies your ability to surpass such ordinary work.

Close with a hint that you are urged to accept other schools, but somewhat prefer to take the one you are applying for if proper inducements are offered. Try to write a very plain hand, as most trustees are far from expert in deciphering hieroglyphics, and fine writing is the most admired of the three R's. If you can make neat flourishes, bestow them on the "Dear Sir" or "Yours Truly," where illegibility does not matter. Social lies look just as well if they are a trifle obscure. Don't fail, either in written or in personal applications, to drop a few hints about the "Quincy Method." True, that phrase is getting somewhat stale in educational circles, but it still has a modern advanced flavor for the school trustee. Of course you must not omit to state that you aim to teach the child to be *practical*. Thoroughness, mental discipline, object methods, etc., are also good words to scatter about.

In conclusion, allow me to give a few causes of failure to get schools, from my own personal experience, that you may shun those pitfalls wherein I fell:

1. Because I thought I knew too much.
2. I asked too high wages.
3. Went to the wrong man first.
4. Wanted to board in the wrong place.
5. Was of the wrong stripe politically.
6. Had on a new white shirt and looked stuck up (country).
7. Wore my pantaloons inside my boots (city).
8. Dinner didn't agree with me, and I was sarcastic.
9. Wasn't a Baptist preacher.
10. Because I was not a woman.
11. Pushed a sticky young one away from my new trousers, and they thought I did not like children.
12. Was too late.

Happy the teacher who does not need to apply for schools, but who can indulgently consider unsought offers at high wages. For such the coming July hath no terrors, but

"Joys unceasing cheer his every day."

C. M. DRAKE.

ROMER, KING OF NORWAY.

A TRAGEDY IN FIVE ACTS.

ACT II.

SCENE I.—A room in the Palace. The King and Nielsen discovered.

King. Didst ever note the queer twinkle in the Queen's eye?

Niel. Why, now I come to think of it, my lord, full many a time; most often when she laughs.

King. Ay, ay, of course you have, and do you know

The meaning wrapt up in that act of hers?

Niel. Why, no, I never thought of it in any particular way, my lord.

King. It means that she is mad; mad, Nielsen, mad.

Niel. And now I come to think of it, I've seen her act in the strangest ways.

King. Ay, ay, and right again; she's very mad.

Where is she now?

Niel. She's in her dressing-room before her glass.

King. A sign that she is mad—

Don't grin, you idiot!

Niel. But, my lord, I meant no harm.

King. 'Tis very true;

Simply your idiotic brain did hang

Her idiotic smiles without to dry.

Hang not such filthy garments of your brain,

To flaunt before the sunlight of mine eyes.

Niel. But, my lord, I meant no harm.

King. Harm, you villain!

Then hold your harmful tongue.

Now tell me, man, wast ever in a mad-house?

Niel. Heaven! my lord, but you'll not send me to one?

King. Send you to one? And do you think that you are worth the sending? Why, when your poor brains once go wool-gathering, we'll cheaply mend them by sinking you, skull, skeleton, and all, Down in the belly of the hungry Baltic.

But tell me now, wast ever in a mad-house?

Niel. Heaven forbid, my lord.

King. Or yet in a charnel-house, where happy worms make madder merriment?

Niel. I am slow of thought, my lord; I have been professionally.

King. To the charnel-house?

Niel. To the mad-house, my lord.

King. Villainous people are those same dead men, and their rotting tongues must needs be long that they may lie there for such a length of time.

And you shall rot; your bones make odors vile;

Those eyes of yours grow colorless and dim—

A pleasant time to think on; is't not so?

Go kiss your love, and think then with what lips

She will return the action.

Think how a million antic worms one day Will build a city in your sweet love's body; Worms oratorical then in her eyes will preach

A sermon in which there is no hypocrisy; Sharp lawyer language there quarrel for estate—

Lord! lord! hold your nose, man, hold your nose!

[Enter the Queen.]

Sweet partner, I was telling your physician About the gate that enters into heaven;

How angels twang upon their gold harps there,

And devils mock without the crystal walls.

Queen. Yes? And 'tis a sweet tale too; for O, it tells of rest.

King. Madam, and which way go you?

Queen. Why? to the right.

King. All thought is left, your mind is not now right.

Queen. What is your meaning?

King. Why, at some future date I'll tell you what I mean.

[Exit Queen.]

Then did you note the wildness in her eyes?

Niel. I surely did.

King. And will you swear that surely she is mad?

Niel. Why, sir—

King. Why, death and blood! you trembling, wrinkled villain.

Niel. Heaven! my lord, but I will swear.

King. Didst ever hear of the seven devils the snake begot on Eve's body in Eden?

And they say gold was a she-devil, and the first begotten. Go send up Leopold.

[Exit Nielsen.]

O what a seething caldron is my soul!

Hell and its legions do inhabit it,

And drive me on to actions dark as night;

Dark! dark! dark!

The heart is steeled, my strong will torn to tatters

By their vile ravings in this heart of mine!

What demon was it set me on to love—

When sun-like love came streaming in my heart.

O what a home did it find waiting there!

The pretty rules of nature turned awry,

All desolation, dark, and gloomy there.

Methinks a million fiends still drive me on

To love a woman that I should not love,

And with a love that maddens all within.

I'm in the stream now of my destiny.

Flee, then, ye spirits of the darkness born,

Bear on my soul through realms of dark despair,

Through hell itself go hold your damned course!

[Enter Leopold.]

My Queen is mad, hast ever noted it?

Leo. Why, no, my lord, I have not noted it.

King. Ha, sir! not note it? not note it? you must have noted it—

Canst comprehend?

Leo. My lord, when I recall to me—

King. Your memory wakens then? why very true.

If she grows worse, we'll have to take her off—

Canst comprehend? Of course you comprehend;

Ay, and ay, and ay, of course you comprehend.

And they have nice accommodations there—

O wretched villain that I am to think it!

But 'tis a most outrageous world is this—

The seats are softly padded, and the walls—

The Queen has fine soft eyes, hast noted it? Poor mournful eyes, that look so sad at times—

The clanking chains make strangest music there,

And madmen scream out wild accomp'niments.

O how they howl, and howl like dogs—

And I did dream a dreamy dream last night.

Leo. I thought you had no time to dream, my lord.

I heard you walking through the hours of midnight,

Seeming with night to race on to the goal of day.

King. A dream? Yet in the passing scenes of night,

I found a place in which to lodge a dream.

I dreamed the world was coming to an end,

And that my heart was filled with thoughts accursed,

And that I dared all hell to punish me.

The sun was dead, and darkness hid the earth;

And death with giant strides tramped o'er the world,

Until it trembled as he strode along.

So thick the darkness as he waded through it,

It eddied 'round him as he moved along.

Full many millions sent up screams and yells

Of dreadful pains as they lay dying then.

Then all was drowned in sounds of mighty thunder,

That tossed its rattling bolts till heaven shook,

As though 'twould fall in shattered ruins down.

The lightnings flashed and hissed along the horizon,

And by their light the pale white ocean showed

Foaming and frothing, as 'twere mad with fear,

Tossing with its great arms the tiny ships Against the black and frowning face of heaven.

A million fiends dragged whirlwinds through the air,

And by the lightning's light I saw strange beings—

Some small, some large, some giant-like in bulk—

All come from other worlds to see this earth

Writhing and struggling in her hour of death.

Here did I wake.

Leo. My lord, when you were born even such a storm

Did shake this Norway Kingdom. Then it seemed

As though the mighty spirits of that world That lies beyond the grave were joined in battle.

They cast their thunder crashing through the heaven,

Till earth was shaken to the very center,

And all the howling storms raged angrily

Upon the surface of the foaming deep.

The churches had their steeples swept away;

Dead men were seen in their grave clothes to rise,

And ghosts were heard through all the night to shriek.

King. And every idiot in this little kingdom

Then thought my birth had brought this fearful storm,

To shadow forth some mighty future woe.

Astrologers, too, gazed upon the night;

Up in the corner of the heaven, alone,

They found a star whose million rays foretold

A million ills. And is not this the tale?

Leo. It is, my lord.

King. O wretched fools!

Are these the beings that must dwell with gods?

Go leave me now, for I would be alone.

[Exit Leopold.]

This vile suspense must soon come to its end,

Quickly, and quickly, while the moments speed.

It matters not if we are parted now,
A little pang upon the parting time ;
It dies away, the wound's soon healed again.
All pain is soon forgotten, and all sorrow
Does take Time's hand, and hurries to the past,

Where soon 'tis buried in a dark oblivion.

[Enter Queen.]

Madam, I am not worthy of your love.

You are an angel, and a villain I.

Some day your spirit, like a rocket shot,
Will pass up through the darkened shade
of death.

I'll kiss my hand to you, and step below,
Where people gnash and cut their teeth
anew ;

Tear out their eyes, and spit upon them
there ;

Scream, yell, and curse ; tear up the rooted
hair.

Considering, madam, then our after paths,
'Tis best we part forever.

Queen. O there must be a madness in
your heart !

O cruel ! cruel ! harsh and cruel word !

King. Ay, madam, yes ; my words, each
in their hands,

Hold thoughts brimful of direst cruelty.

My wicked acts might loom up mountains
high

Above those deeds 'tis said the devils act.
My life might make a scene upon their stage
To please an audience in the depths of hell.
But in this, my career, I'm driven onward,
And am not led by any will of mine.

I long have striven against an inclination
That in my brain sits there a monarch,
And rules my other thoughts.

Queen. And I ? Have you no thought,
not one, for me ?

Because you have this foolish fantasy,
This childish thought, am I to be deserted,
Be left behind abandoned to those waves
That from the sea of life will surge and
break,

With sullen roar, above the heads of those
Who've sunken downward, drowned be-
neath its depths ?

King. It cannot be in any other wise.

My mind's now firmly fixed in this resolve,
That we must part.

Queen. And you've no reason yet to
give for this ?

King. My reason lies in this, that it
must be.

Queen. Your reason lies in this, that in
your heart

There's not a spark, an idea ; no sensation
To show you up a man. But in that heart
Is cruelty and cunning intermixed ;
And there they hold such sway that gentler
thoughts

Have long ago fled from the hideous scene.

King. Now you upbraid me ; now I
have a reason

Which ne'er before had I to urge against
you.

Queen. If reasons were the weapons that
you used

In this harsh war against me,
Why, I would bring a million reasons,
With such a bristling front
That then yours would not dare to battle
with them.

But no, no reason fronts those acts of yours
To give to them a bold and daring visage ;
But cunning leads them on, and cowardice
And slinking cruelty aids all your acts.

To gain your purpose, you would break
God's laws,

And love another, though you're bound to
me.

That cruel love of yours, which once was
mine,

Doth like some vine whose roots are in a
grave

Grow to another.

King. You shall be happy. All of those
possessions

Which ever were, and more than all before,
Shall still be yours.

Queen. Nay, strive to speak your harsh-
est words to me.

The harshest words that ever cursed a lan-
guage

Were sweet beside these hideous promises.
The grave would soon seem like a gentle
home,

For which my thoughts would never cease
to long,

Lived I in that, that you would picture to
me.

King. And yet it still must be, and we
must part.

Queen. A year ago had I been told
'twas so,

I would have spurned the thought,
That in humanity could be such coldness.

King. Yet will I still be ever kind to
you,
And all you wish—that all shall still be
yours.

Queen. And if your kindness took this
fearful form,
My misery then would tear from out my
brain
Each record of the past; destroy each gen-
tle story
Of days gone by;
And in my brain, that had become a ruin,
Would thoughts of madness come to hide
themselves.

King. My life was all laid down, and all
its course,
Before I drew my breath; and I have
learned
From those that speak to and can hear the
tones
Of them that answer from beyond the grave,
That henceforth we must part; for so 'tis
written.

Queen. I scarce can trust you in this
fearful change.
This seems no vision of the day, but one of
night—
A monstrous birth brought from some dream
at midnight.
And if you do not change your mind in this,
I call on heaven to crush your cruel
schemes;
And heaven will lend me aid, for even now
Your subjects fast grow secretly your foes.
They call you now a tyrant,
And while they point to many a headless
corpse,
They work for their revenge.

King. Then you have turned your face
against me too.

Ha! Madam, is it so? Then is it so?
Why, madam, you are mad.

[The King presses a bell. Enter two offi-
cers. The Queen is standing by a canary
bird's cage.]

Queen (speaking to the bird). Did your
strong mate then call your little brain
A mad brain too, and lock you in this cage?
Or have you done some fearful villainy
That men should lock you in this pris'ner's
cell?

Poor prisoner! What horrid crime indeed
Did you have malice in your heart to do?

And were there none to hear you sweetly
rave?

Not one to listen to your poor complaint?
Nay, nay, they passed you by. Hey, was't
not so?

When men had dragged you from your lit-
tle home,

Then did your friends come trooping on
behind

To grin and gape and stare at your despair?
With wisest faces then did they remark,
That they had ever noted your black heart,
Your villain's face? Ha! Ha! And here
you've been

Hopping about, singing for many a year,
Pouring your sorrows on the dumb, cold air;
Poor little wretch! but I will make you free.

King. Such is her madness, as it ever
was.

Queen. O call this but some cruel jest of
yours,

And I will suffer all that you may laugh.

King. See you how sharp and cunning
now she is.

1st. Off. A sign she's mad; 'tis ever so
with them.

Queen. Then is it so? My lord, can
you be kind?

I ever loved you well, and will you now
So roughly spurn that love? O do not thus!
I'd rather die than you should use me so—

King. Grasp hold of her, for she will
rave forever.

Queen. O wait one moment, for kind
heaven's sake!

A little moment; ages now to me.
Sweet husband, if you will not live with me,
O let me flee far to some darkened forest,
That I may tell the silence there my sorrows!
O, anything but this most dreadful fate!
For Christ's sake do not act so cruelly!
Go see the sun, and note how kindly, gently
He lays his ray upon the rose's breast;
The day with twilight smooths the path
for night;

The night with dawn prepares the way for
day;

The passing hours relieve each other on
The march that leads down to eternity—
O, be not thou more cruel than all these.

King. I will not be
More cruel than your hours
That move so silently.

This deed shall be as silently forgot;
And like the people on this earth of ours,

I'll take your rose to cover up the deed,
For roses oft do grow o'er skeletons—
Now lead her out.

Queen. O, hold! O, hold! For the
sweet Heaven's sake.

My lord, O kill me rather than do this!
Here is my bosom, if you have a dagger;
Here is my bosom bare and white as snow.
Now dip a dagger in my heart's warm
blood,

And write in bloody letters on my bosom
A host of curses 'gainst my poor dead body.

King. It shows me foolish that I let
your madness still strive to reach my pity.

Queen. What can I say? All thoughts
desert me now,

And will not come to help me in this time—
In this hard moment that is filled with
horrors.

My very blood does freeze to think of it—
A madman's cell—a madman's cell my
home?

O that I had a mighty giant's mind,
And in my mouth a tongue so sad and
mournful

That heaven's winds would cease to moan
and listen,

And all the clouds would come to hear me
speak:

Then would I speak until the hard stones
wept,

And streams were silvering every mountain
side

The whole world over!

Then would I come to plead, my lord, with
you.

1st Off. Shall we seize her, my lord?

Queen. But this is cruel; this is very
cruel!

O that the angels coming from high heaven

Sacramento, Cal.

Would drop their tears while passing on
your heart,

Or send their whispers floating over it,
To drive away the ghoul-like anger there.

King. Go, lead her out—

Queen. The Devil himself methinks
might pity me.

But you will not—

King. Go, lead her out.

[Exit Officers with the Queen.]

This love for Hela's fiendish, hellish, out-
rageous;

It is a smoke the winds have blown from
hell.

Yet I am dragged on as one in a dream.

Divorce comes next; we'll have a holy
bishop

To pass that sentence through his loving
heart—

God! God! what villains we are!

Still on and on must run my mad career,
Upon the rushing stream of destiny.

Hark to the music that accompanies me!

A million devils that dwell in the air,
I see them ever crowding round my path.

I see them in the darkened hour of night
Come vaulting o'er the rolling clouds of
night.

I see them racing with the hurricane,
And ever grinning as they race along.

Ay, grin and grin; let hell lurk in each
grin,

And shoot your hellish eyes like darts of
fire;

I'd dare ye to th' encounter wer't upon
The brink of that great pit, where flames
flash up,

And lick their tongues against the face of
heaven.

[Curtain.]

ADAIR WELCKER.

[END OF ACT II.]

LANGUAGE is a revealer of character, and that which a man would conceal by his acts and manner he cannot hide in his words.

THE essential difference between a good and a bad education is this, that the former draws on the child to learn by making it sweet to him; the latter, drives the child to learn by making it sour to him if he does not.—*Charles Buxton.*

A FEW SUGGESTIONS ON THE SUBJECT OF GOOD READING.

WHEN children begin to read they give to every syllable an equal pause, all being equally accented, thus:

"Still' sits' the' school'house' by' the' road"; or,

"From' Green'land's' i'cy' moun'tains."

The next step in their progress is that they class those syllables together which form words, leaving the rest as before, thus:

"Still' sits' the' school'house' by' the' road"; or,

"From' Greenland's' icy' mountains."

Words are thus formed of syllables, partly by pronouncing the syllables more closely together, and partly by giving an accent to one of the syllables; as, school'house, moun'tain, vol'untary. As the number of syllables in a word increases, especially when the accent is near the beginning or end of the word, a number of unaccented syllables are thrown together; then a secondary accent is frequently necessary. Thus, in the word "voluntarily," the primary accent being on the first syllable, *vol*, there is a strong tendency to throw another on the third syllable, *lar*; this we may denominate the secondary accent.

When words exceed five syllables, a secondary accent is always necessary wherever the primary may be; as, *commu'nica'tiveness*, *re'considera'tion*, *an'ti-tri-ni-ta'rian*.

In these very long words there are frequently three accents distinctly heard. There is a sort of gradation of accent running through them. Thus, in the word *in'com'prehen'sible'ness* the accentuation is thus arranged: the primary accent is on the fourth syllable, *hen*'; the secondary on the second syllable, *com*'; the tertiary or third on *ness*, and the fourth on the first syllable, *in*.

In good reading there are constantly occurring phrases in which, though the words are separately written, yet so closely are they connected in sense that they require to be treated in precisely the same manner; to be combined, as it were, into one word, by pronouncing them closely together, giving to one of them a primary, and to others a secondary and even tertiary, etc.

Thus, in the lines already quoted, the proper reading should be as follows:

"Still—sits the school'house—by the road'."

"From Greenland's—icy—mountains."

Very much of the clearness of our reading consists in thus grouping together words which are closely connected, presenting as they do only one object to the mind. And nothing creates greater confusion and indistinctness than when a reader or speaker separates those words which ought to be united, and joins together those which ought to be separated.

In the remarks and exercises which follow, the words are distributed into groups, each forming a compound word, to be read closely together, and having an accent on the principal word, so that when read it may be heard, not as a succession of syllables or words, but as a succession of phrases, each containing a distinct idea within itself, and kept separate from the others.

These compound words or phrases are not, however, connected with equal closeness. Some require to be pronounced more closely together than others, because they are more intimately connected in sense. Thus there ought, manifestly, to be longer pauses after the words "still" and "school-house" than between the other words, thus:

"Still—sits—the schoolhouse—by the road," etc.

To express this difference of connection between different phrases the single and double hyphen may be used as above; the former to denote the shorter, and the latter the longer pause. When the ordinary marks of punctuation intervene, no additional mark is necessary, because such marks imply a division between one phrase and another.

To mark the distinction of primary and secondary accents we will use the acute and grave accents; the former to mark the stronger, and the latter the weaker accent.

A general principle in locating the accent is, that whatever word limits the phrase or renders it more specific requires the primary accent, because the limitation is usually that which the speaker wishes or finds it necessary most determinately to impress upon his auditors. Thus, when 'an adjective qualifies a noun the adjective carries the accent; as, "a good' man," "a tall' horse," "a high' house." When an adverb qualifies a verb, the adverb carries the accent; as, "read slowly'," "speak distinctly'." The negative adverb is an exception to this rule, because it is treated as part of the verb itself; as, "read' not," "thou shalt' not."

On the same principle, in compound numbers the smaller number carries the accent; as, "twenty-one'," "twenty-two'," "three' and twenty'," "a hundred and fifty-two'," etc. When a verb follows its nominative, the verb carries the accent; as, "the sun'-shines'," "the wind'-blows'," "the horse'-neighs'," etc. In the case of a verb governing its objective, the latter carries the accent; as, "read'-the letter'," "call'-the servant'," etc. But should the objective be a pronoun, the verb carries the accent; as, "call' her," "light' it," "sew' it," etc. The pronoun, however, if emphatic, carries the accent, but this can only be the case when such pronoun suggests a contrast.

When one noun governs another in the possessive case, the governed noun usually carries the primary accent; as, "the light' of the sun'," "the cold' of the ice'," "the height' of the spire'," etc. But when the possessive form of the noun is used, the governing word is usually that most directly before the mind, and therefore requires the primary accent; as, "the children's book'," "a lion's mane'," etc.

These, however, are but the elements of sentences, for it frequently happens that adjectives qualify nouns, and adverbs adjectives and verbs, and verbs have their nominatives and objectives in the same sentence.

It will naturally occur to an attentive reader that the combination of these various cases must create a great diversity in the intensity of accents; one accent, as it were, rising above another, as in fact it does; and accurately to mark them all would require a system of accentuation far too complex to be generally useful. The two marks given above, the acute and grave accents,

we deem upon the whole amply sufficient, the reader being left to his own judgment and taste to make the more delicate variations, in which he will be materially assisted by attention to the principles above explained.

A few examples of the foregoing rules combined with one another we will give as illustrations: "The fair' moon-shines' brightly.'" "The broad' Rhone's'-foaming channels-proudly' shone.'" "The curse'-of the Lord'-is in the house'-of the wicked; but-he blesseth'-the habitation' of the just.'" "Trust'-in the Lord' with all'-thine heart'; and lean' not-to thine own' understanding'.'" "Wisdom-is the principle thing, therefore-get' wisdom'; and with all'-thy getting', get'-understanding'.'" "If any' of you-lack' wisdom', let him ask'-of God, that giveth'-to all' men-liberally' and upbraideth' not, and-it shall be given' him. But-let him ask'-in faith', nothing' wavering'; for-he' that wavereth'-is-like-a wave'-of the sea', driven'-with the wind'-and tossed'; for-let' not-that' man-think-that he shall receive'-anything'-of the Lord'. A double'-minded man'-is unstable'-in all' his ways'."

It has been stated that pronouns are usually unaccented, except when they are emphatic. This statement renders it necessary to make a distinction between accent and emphasis. Emphasis always implies or suggests a contrast; and *any* word in a sentence may, where a contrast is intended to be suggested, become emphatic. Thus, in the phrase "on the ta'ble," if no contrast were intended to be suggested, be accented on the syllable *ta* of the word *ta'ble*. But if the word *on* be accented, it immediately suggests the idea *on*, as distinguished from *under*—not *under'* but *on'* the table. The naturally accented syllable, however, may also be the emphatic one.

Take, as a well-known example, the following:

Do' you *ride'* to town'—to-day?

Do *you'* ride to town to-day—or send your servant?

Do you *ride'* to-town to-day—or walk?

Do you ride *to town'* to-day—or to the country?

Do you ride to town *to-day'*—or to-morrow?

Do you ride *to'* town to-day—or only part of the way?

By reference to the above we may observe that every word in this question may, by being pronounced emphatically, suggest a contrast.

Emphasis, then, is very different from accent, although it is sometimes confounded with it, because very frequently emphasis is expressed, like accent, by a louder tone of voice. Emphasis, however, is not confined to this mode of expression. It may be expressed by almost any means that will single out the emphatic word from the rest of the sentence, and render it prominent and remarkable. It may be expressed by the *tone*, by the pitch of the voice, by increasing or decreasing the quantity, by pronouncing the emphatic word in a whisper, or simply by making a distinct pause before or after it, or both before and after it. These different modes, however, of expressing emphasis produce very different results; and they must be adapted to the nature of the emphasis that is intended to be expressed, for which it would be difficult to give any other rule than to watch the natural intonations and modulations of the voice.

J. K. L.

UNFAMILIAR NAMES OF FAMILIAR BIRDS.

ALL who have attempted the study of Ornithology have found themselves confronted at the very outset by what has proved to many an almost insurmountable obstacle in the great array of seemingly disconnected and meaningless scientific terms. To try to remove a portion of this stumbling-block from the way that leads to a knowledge of this, one of the most delightful branches of natural history, is the object in the preparation of this article; and it may incidentally show that the scientific nomenclature used in Ornithology, so far from being in the loose and completely chaotic style many seem to think, is, in reality, in a very compact and convenient shape for use by the student, who will carefully and patiently strive to make himself master of its fundamental principles.

It should be observed at the outset that the scientific name of a bird consists of two words, although a name is occasionally met with in which three words appear. In common with other branches of science, all names in Ornithology are written in Latin. The first word in a scientific name is the generic term, that is, the name of the genus to which the bird belongs. It is generally written with a capital initial, and on the presumption that all readers are sufficiently versed in Ornithology to know the various genera from their initials, is often abbreviated to that letter. For example, the name of the Brant Goose (*Bernicla brenta*) is frequently written *B. brenta*; the name of the Canada Goose appearing as *B. Canadensis*, etc. When the classical, either Greek or Latin, name of a bird can be ascertained, that name is applied as the name of its genus, as in the case of the Latin word *Falco*, a falcon, which gives name to the whole family of the Falconidæ. In case the classic name is unknown, a word is coined as a name for the genera. Such names are usually descriptive of some peculiarity, either of structure, as in the case of the Thrasher (*Harporhynchus*—sickle-beaked), from its curved beak, which was thought to resemble an old-fashioned sickle; or from some marked peculiarity of habit, as *Actodromas*—running by the sea-shore—to the little Sandpipers in reference to their well-known habit of racing up and down the sea beach in their search for food or for their own amusement.

The remaining word or words, where more than two are employed, constitute the specific name, which is written in small letters, and is never abbreviated. In the application of names to the various species as they have been discovered, scientists seem to have been guided by some quite well-defined principles, which can probably be illustrated by a few examples more satisfactorily than in any other manner.

The locality where a species abounds or was first discovered often gives it a name; as *Larus Californicus* (Californian Gull), from its abundance along the coasts of this State.

A noticeable marking sometimes gives a name to a species. The White-tailed Eagle (*H. albicilla*) illustrates this class very well indeed, by the band of white feathers across its tail.

Its habits are occasionally made the basis of a name for a species, as in the case of the Bohemian Waxwing (*Ampelis garrulus*—garrulous, talkative), from the almost constant chattering this little bird keeps up while feeding.

Several species have been named after their discoverers. When a man's name is thus used it is Latinized by giving it the termination of the genitive case, and is translated by the possessive case in English; thus, *Pipilio Aberti*, Abert's Towhee Bunting, named in honor of its discoverer, Lieut. J. W. Abert of the U. S. Army; and a few species appear to have taken names from noted scientists, as in the case of the Elf Owl (*Miscrathene Whitney*), in honor of Professor J. D. Whitney, Director of the Geological Survey of California.

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HOW TO TEACH FRACTIONS.

THE subject of fractions is rightly considered a difficult one to teach. To the child who has simply been accustomed to use whole numbers in the four fundamental operations of arithmetic, the introduction of a new order of quantities, expressed in a new way, is apt to be both puzzling and discouraging. Although he learns that a fraction is expressed by two numbers, one of which is the dividend and the other the divisor, still, there is a vagueness about the matter which is often cleared up only after many days. The child is apt to think that if there is a dividend and a divisor there should also be a quotient, and he hardly understands how a small number can be divided by a larger one.

The reasoning faculties of the child are among the last powers of the mind to be developed, and teachers should endeavor to avoid forcing them too much, but seek to bring to the child's mind clear-cut and definite perceptions, which are the only ones which are stored up and kept.

The child makes greater progress when tangible objects are brought through his observation to his understanding, and hence the great wave of progress made when object-teaching began to be systematically practiced.

When there is no material object which the teacher can employ to represent the child's idea, or the idea which he wishes to convey to the child, an imaginary object is often resorted to, and may serve a good purpose where the subject is not too complex. But it requires an act of the mind to construct such a phantom, and the mental strength thus used must be deducted from the force which is needed for the consideration of the theme itself. The weak mind of the child is thus liable to become bewildered, and lose its grasp upon the subject under consideration.

It can hardly be doubted, at the present time, that the sense method of teaching is more natural, and bears better fruit than the abstract method. Abstractions, indeed, are of infinite value, and an ability to reason abstractedly is beyond price; but few will doubt that a clear and definite knowledge of the concrete is the best possible introduction into the realm of the abstract.

Such considerations have suggested the application of object-teaching to the study of fractions, and has developed the now famous *Bynon's Fractional Apples*, which is (educationally speaking) the best system of teaching fractions yet developed.

Bynon's Fractional Apples comprise a set of three large apples, divided respectively into *halves*, *thirds*, and *tenths*. By combining these fractional parts almost every operation in fractions may be made visible to the child, and by the power of object-teaching he is familiarized with the method of thought required.

The Primary Apple is painted red in imitation of the Baldwin apple. It is divided into one *half*, one *fourth*, one *eighth*, one *sixteenth*, and two *thirty-seconds*.

The second of the series is painted yellow, in imitation of a Pippin, and is divided into one *third*, one *sixth*, one *ninth*, one *twelfth*, one *eighteenth*, one *twenty-fourth*, one *forty-eighth*, and a *complex fraction*, which is composed of *one-sixth* and *one-half of one-fourth of one-sixth*. It may be expressed as $\frac{1\frac{1}{6}}{6}$, or $\frac{1}{6} + \frac{1}{48}$. The value in lowest terms is $\frac{5}{16}$.

The Decimal Apple is painted green, in imitation of a Rhode Island Greening. Its parts are one *fifth*, one *three-twentieth*, five *tenths*, one *fifteenth*, one *twentieth* and one *thirtieth*.

Each fractional part of these apples has its value, expressed as a fraction, printed upon it. They are so arranged that the various fractional parts may be separately taken away, leaving any desired fraction, even to the smallest indicated above. They are also interchangeable, so that desired fractions may be made up from any apple.

The inventor of this series of objects was led to think of such a work by his efforts to give his own children a clearer idea of fractions than they were obtaining in the schools. He found that they, in common with most children, held rather vague and uncertain views concerning the nature of fractions, and the various operations performed with and upon them. To better explain these points, he conceived the idea of accurately dividing some familiar object into parts, then comparing their relative sizes, and finally of representing the value of these parts by numbers in the form of fractions. By variously combining these parts, he thought that the chief laws of the subject could be clearly illustrated. The apple was naturally selected as the unit, which was divided and subdivided into as many parts as were necessary.

With any one of the apples it can be shown that as soon as a part of the apple is removed from the stand the remainder is no longer a whole apple, and that any part is a *fraction*. This distinction between whole numbers and fractions may be firmly established and applied to other things. Next it may be shown that the different fractions are not all of the same size, and gradually it may be made plain that two or more fractions may be combined, and the sum will be equal to another fraction. Thus the idea of reduction and addition may be imparted before even the name of the operation is known.

The half will naturally be the first fraction that is known by name. When one half of the apple is removed, the remainder is plainly another half,

so an apple is made up of two halves. At this stage the art of indicating fractions by means of figures may be introduced, and the pupil will be taught that $\frac{1}{2}$ means the same as the words *one-half*. Whenever the teacher thinks proper the reasons for the expression $\frac{1}{2}$ may readily be explained by showing that the 2 refers to the number of equal parts into which the apple is divided, and the 1 shows how many such parts are taken together.

The quarter can next be introduced, and compared with the whole and the half. It will naturally follow that $\frac{1}{2} = \frac{2}{4}$, and that $\frac{1}{2} + \frac{1}{4} = \frac{2}{4} + \frac{1}{4}$. For quite young children a knowledge of halves and fourths will perhaps be found all that is desirable. "Make haste slowly" is an excellent motto for the primary teacher.

Passing on from mere primary work to the regular drill in the study of fractions, it should be remarked that the relative sizes of very many of the more common divisions of a unit may be presented to the eye, and in this way a clear idea of the value of each will be attained.

The half and the fourth have already been spoken of; the less familiar parts may be presented to the older pupils in a similar manner.

By continually bisecting the parts of the apple we have a decreasing geometrical series, $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{16}$, $\frac{1}{32}$. The truth thus becomes obvious that, "with a constant numerator, multiplying the denominator divides the fraction." The same truth may be illustrated with different figures, by using the parts of the other apples.

Various simple exercises may be derived from the parts of the red apple alone, e. g.:

Reduce $\frac{1}{2}$ to eighths.

Reduce $\frac{1}{2}$ to sixteenths.

Reduce $\frac{1}{4}$ to thirty-seconds.

Reduce $\frac{3}{4}$ to halves, eighths, etc.

Express in the simplest numbers possible the value of each of the parts in the red apple; reduce these fractions to a common denominator, and add the results. The sum should be a unit.

Place upon the stand $\frac{1}{32}$, and require the class to add orally, as each of the pieces are put beside it, until the apple is completed. Then remove the $\frac{1}{2}$ and require the class to give the remainder, and as the teacher removes piece after piece, the children announce the fraction upon the stand until the last piece is removed.

Take up the yellow apple, and after showing the class the principal points of difference between it and the primary apple, all the parts may be removed at once by turning the stand upside down. Take up the $\frac{1}{3}$ and place it upon the stand. Have the class name the piece. Then show the $\frac{1}{3}$, $\frac{1}{4}$, and $\frac{1}{2}$ side by side, in order to fix their comparative sizes in the children's mind. The question may then be asked, "This is $\frac{1}{3}$; what piece must be placed beside it to make it equal to $\frac{1}{2}$?" When answered correctly, have the child first answering it explain to the class the process of reasoning by which the re-

sult was reached. The answer should be $\frac{1}{6}$, which piece may now be placed on the stand, showing just $\frac{1}{2}$.

Now remove the $\frac{1}{6}$ and in its place put the $\frac{1}{4}$ from the red apple and require the class to tell the sum of the two fractions, which is $\frac{7}{12}$. Then ask, "How much more shall be placed upon the stand to make it equal $\frac{2}{3}$?" When the $\frac{1}{12}$ is added, ask, "What fraction will exactly half fill this space?" Place the $\frac{1}{6}$ on the stand, and then showing that $\frac{1}{6}$ remains to be filled, take the $\frac{1}{9}$ and ask, "If I put this $\frac{1}{9}$ in this space, what will be the name of the fraction required to exactly fill the remaining space?" Only pupils who have had considerable experience in fractions will answer this question correctly. The answer, $\frac{1}{18}$, should be made plain to the class, either by the child answering, or the teacher. And, indeed, the process of reasoning by which all correct answers are reached should be made so plain that the child can readily see through them, and see not only *how* but *why*. It is equally as important that a child be taught to communicate his thought intelligibly to others, as to intelligently comprehend it himself.

Other parts of the other apples may be employed afterwards to furnish more difficult problems in finding the common denominator, addition, and subtraction. Then combinations can be made of pieces taken from each apple, and still every problem will be demonstrable to the eye as well as to the intellect.

The following are a few suggestive problems:

Add $\frac{1}{3}$, $\frac{1}{2}$, $\frac{1}{6}$.

Reduce $\frac{1}{24}$, $\frac{3}{20}$, $\frac{1}{30}$ to a common denominator.

Add $\frac{1}{9}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{1}{15}$, $\frac{1}{24}$.

From the sum of $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{6}$, take the sum of $\frac{3}{20}$, $\frac{1}{5}$, $\frac{4}{30}$, $\frac{1}{10}$.

In the last problem, place the parts representing one series upon one stand, and compare them with the second series, placed on another. The visible results will often be startling, and will create much enthusiasm.

If a long test problem is wanted, add the fractions represented by all the parts of any two of the apples; the sum should equal two. Finally, add the parts of all three apples, and show that the sum equals the whole number, 3.

The reduction of fractions may be illustrated with equal facility. For example: $\frac{2}{3}$ of $\frac{3}{4}$ may be shown on the red apple by placing upon the stand the half and the quarter; the value is $\frac{3}{4}$. One-third of this value is evidently $\frac{1}{4}$, and two-thirds is twice as much, or $\frac{2}{4}$, which equals $\frac{1}{2}$. With the green apple let us find $\frac{4}{6}$ of $\frac{2}{10}$. Place two tenths together, and find $\frac{1}{6}$ of their sum. It will be plain that $\frac{1}{6}$ of $\frac{2}{10} = \frac{1}{30}$; $\frac{4}{6}$ of $\frac{2}{10} = \frac{4}{30}$ or $\frac{2}{15}$.

Take the red apple and half of the yellow apple and find $\frac{1}{3}$ of their sum.

$\frac{1}{3}$ of $1\frac{1}{2} = \frac{1}{3}$ of $\frac{3}{2} = \frac{1}{2}$.

These fractions will afford easy adding, subtracting, and dividing for children in all grades. The $\frac{1}{30}$, the $\frac{1}{15}$, and the $\frac{3}{20}$, however, will need to be

well understood before they are passed. Perhaps the best way to give the child a correct idea of their value is to explain that the $\frac{1}{30}$ is $\frac{1}{3}$ of $\frac{1}{10}$; the $\frac{1}{15}$ is $\frac{2}{3}$ of $\frac{1}{10}$, and the $\frac{3}{20}$ is equal to $\frac{1\frac{1}{2}}{10}$. The various combinations of this apple with the others, and its use in teaching decimals and percentage, make it of great value to the set.

A useful exercise in subtraction may be had by assuming the apples to represent each a dollar. The teacher removes $\frac{1}{10}$, and asks what part of a dollar remains. The answer will be 90 cents. The other parts are removed in the same way, the teacher announcing the fraction taken off, and the class the number of cents remaining. When all the parts have been removed except the $\frac{1}{15}$ and the $\frac{1}{30}$, there being then but ten cents remaining, the teacher may ask: "There are now just ten cents on the stand, represented by $\frac{1}{10}$ of the apple; I will remove $\frac{1}{15}$; how much remains, and what is the name of the fraction remaining?"

This exercise may be reversed by replacing the pieces on the stand and requiring the children to add the value of each piece as replaced.

Whilst, for various reasons, the green apple is the best for exercising the beginner in the aliquot parts of the dollar, all the fractional parts in the set will be of great use for this purpose in the various classes of more advanced students.

If it is desired to extend these exercises, the aliquot parts of the foot, of the ton, of the 100 lbs., or of the ream of paper, the quire of paper, of the day, or of the pound Troy or apothecaries' weight, may be equally well illustrated by the apples; but the intelligent teacher will readily discover new uses in this direction as well as in many others, which it is not necessary even to mention here.

It is incredible with what facility the children grasp the meaning and value of fractions by the use of this ingenious device; and all teachers, in whatever grade, will find them invaluable in almost every operation they are called upon to teach.

JOSIAH KEEP.

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SELECTED MISCELLANY.

THOUGHT-READING.—The remarkable phenomena connected with the reading of the thoughts of one person by another were illustrated in Boston this week, before a company of experts, among whom were ex-Mayor Green, ex-Governor Claflin, and members of the medical corps of Harvard College. The thought-reader was Mr. Cumberland of England, who has exhibited wonderful skill in this new revelation in psychology. Mr. Cumberland stated that he laid claim to no supernatural powers, but that the success of his efforts depended upon the fact that the body is always in accord with the mind, and that when the thought is concentrated in one direction, there is a physical mani-

festation of that thought, which can be detected by one of deep and quick perception. With this introduction, he proceeded with his experiments, which consisted of finding objects thought of by his subject, he himself being blind-folded, and holding the subject's left hand first to his (Mr. Cumberland's) forehead and then in both hands. In this way many objects were found, and numbers thought of were read with complete success. A test, which Mr. C. considered one of the most difficult, consisted in the subject reading the date of a coin, taken from a third person; Mr. Cumberland then, still blind-folded, writing the date upon a piece of paper. A more difficult test, the most interesting and successful of the evening, was proposed by one of the gentlemen from Harvard College. Mr. Cumberland being sent out of the room, a gentleman took from his pocket a small bronze turtle, which could be made to stand upon its fore-feet and head. Placing this flat upon a table and covering it with a hat, it was explained that Mr. Cumberland was to come into the room, remove the hat and take up the turtle, all of which it was conceded he could do with ease. Then—and this was regarded as the difficult part of the test—he was to take the turtle and stand it upon its head, in the manner described above. A subject was selected and Mr. Cumberland recalled; he quickly went to the table, put the hat aside and took up the turtle. This he handled for a moment, asking what it was, and then, replacing it on the table, put his finger on the head and struck it several times, after the manner of a boy's "tip-cart," showing at least the impulse to do what was desired. After several attempts he remarked, "I can't get away from here, and yet I don't know what you want me to do with this, unless it be to knock it about the table." It was then suggested that the subject think of the manner in which he would do it, and in a very few moments Mr. Cumberland took the turtle by the tail and stood it upon its head, his accomplishment of the feat being greeted with hearty applause. It being asked whether his success depended upon physical contact, that question was answered by the performance of a test in which the hands of subject and operator were connected by a piece of metal. The evening's entertainment, which was most pleasing to all the spectators, was brought to a close by an illustration of the way in which several so-called spiritual manifestations are brought about.—*N. E. Journal of Education.*

ALASKA.—The vast extent of Alaska is very little known. Its length from north to south is as great as the distance from Maine to Florida, and its breadth from its eastern boundary to the end of the Aleutian Islands is equal to the distance from Washington to California. The farthest of these islands is as far west of San Francisco as Maine is east of that city. The area of the territory is nearly one-sixth of the entire area of the United States. If its coast were extended in a straight line, it would belt the globe, and its mountains are the highest in the United States.

The chief resource of the territory is its seal-fur fisheries, which furnish nearly all the seal skins used in the markets of the world, and have paid a revenue into the United States Treasury of over three million dollars since January, 1871.

The other resources are fish, minerals, and petroleum. Alaska is said to be the great reserve lumber region of the United States. When the forests of Maine, Michigan, Wisconsin and Minnesota have been denuded, a use will be found for the thousands of miles of yellow cedar, white spruce, hemlock, and balsam fir which cover the south-eastern section of Alaska.

The climate varies in different parts of the territory. At Fort Yukon the thermometer often rises above one hundred degrees in summer, and sinks as low as seventy degrees below zero in winter. But the winter climate of south-eastern Alaska, for the past forty-five years, has been the average winter climate of Kentucky, and the average winter climate of Minnesota. The population includes about one thousand five hundred whites, mainly traders and miners. The natives number thirty-one thousand three hundred and eighty-six. About 9,000 of these are claimed by the Greek Church; and but little has been done by the United States for the education of any part of the population.—*Youth's Companion*.

UNDERGROUND TEMPERATURE.—The committee on underground temperature, in their recent report to the British Association for the Advancement of Science, gave a very full and lucid account of their experiments for determining the rate of increase in temperature in descending into the earth. After stating the difficulties encountered and the means used for overcoming them, and describing the observations recorded and the methods of getting at them, the report goes on to state results. Mines, borings, and wells were explored in almost all parts of Europe. The slowest rate of increase was found at Liverpool, when it was 1 deg. F. for every 134 feet descent. At one place in Bohemia it was 126 feet for every degree. The most rapid increase was Northumberland, where it was 1 deg. F. for every 34 feet descent. The statement given in our text-books is 1 deg. F. for every 50 or 60 feet descent, while this gives the mean as 64 feet.

In this connection it may be well to say, that this increase of heat in descending into the earth is the common argument in favor of the theory that the interior is liquid fire, and this crust on which we live is only a few miles thick. But this theory is not to be accepted too readily, and many of our leading scientists are declaring against it, and in favor of the idea that it is solid, with little nooks, or "pockets," as the miners call them, of fire. The observations noted above certainly do not show any given depth at which to reach the fire, since in some places it seems nearer than in others, which would be the case were the earth full of "pockets" of fire, and would not be the case were the whole interior incandescent.—*N. E. Journal of Education*.

SALT IN THE SEA.—In its deepest parts, the sea is intensely blue, but where it is shallow it is a bright green color, which prevails until soundings cease to be struck. Some people ascribe the blue to the reflection of the sky, and say that if the green water which is found nearer land were piled up in a basin as

deep as that which holds the blue, it would be the same color. But the true cause of the difference between the two is the quantity of salt which the water contains. Some parts of the sea are much saltier than others, and it is these which are the bluest.

That the sea-water is denser in one part than another is the result of evaporation, less rainfall, and a smaller importation of fresh water by means of rivers, etc. It is estimated that eight feet of water are annually withdrawn from the Red Sea by evaporation only, and it is not surprising that it is saltier than the Baltic, where the evaporation is very small, and where, unlike it, there is an influx of water from various streams and heavy annual rainfalls.

But why is the ocean salt at all?

The streams which feed it bring with them the salts of the soil through which they pass. As evaporation is ever going on, one would think that sea-water must ever grow more lime-like; but such is not the case. The heavy heated waters of the tropics carry saline matter to be absorbed by the fresher waters, which in their turn rush forth to seek a home in more hospitable regions; and hence it is that the seas from which there is no evaporation, and which receive abundant supplies from rivers, etc., keep up their character and do not become saltless lakes.

So the sea is salt by reason of the earth-washings which are poured into it; it has different densities because of evaporation, rainfalls, and rivers, and it is prevented from stagnating by a universal system of ocean currents.

EQUALITY IN SCHOOL.—Foreigners who visit Boston are usually shown its public schools. The prominent impression made upon them by the sight is, that it is the only large city where the children of the rich and the poor are so generally educated together.

Some years ago, Lady Amberly, an intelligent Englishwoman, visited the Boston Girls' High School. The first thing that attracted her attention was the intellectual appearance of the pupils. Then she noticed their lady-like carriage and air of good-breeding.

"I suppose," she said to the head master, "that these are children of your more wealthy classes?"

"All classes are represented here, madam," answered the master. "Do you see those two pupils promenading together? One of those girls is the daughter of a merchant, and the other of a working-man."

"I really see no difference in their appearance," said Lady Amberly, calling the attention of her husband to them. He was a reticent person, the son of Lord John Russell; but before they left the building she gained his assent to her remark that the methods of such a school were, on the whole, the best for society and for the social elevation of the children.—*Youth's Companion*.

EVIL habits are webs, which are too light to be noticed until they are too strong to be broken.

EDITORIAL DEPARTMENT.

A WORD OF ACKNOWLEDGMENT.

IN view of the fact that at an early meeting of the State Board of Education, action on the designation or re-designation of an official organ is probable, we recently sent out circular letters to the leading educators of the State, asking for an expression of opinion in regard to the standing and work of this JOURNAL.

For the answers to this circular, we return cordial thanks to the educators who, from every quarter of the State, have sent in their indorsements. Responses have been received from leading teachers, from superintendents, from Boards of Education, from entire school departments, testifying to a generous appreciation of the work done by our periodical during more than six years past.

These answers, not from personal friends, but in a vast majority of cases from total strangers, irrespective of individual likes or dislikes, without regard to political affiliations, all speak in the same unvarying strains of the faithful and important services rendered by the JOURNAL to the cause of education on this coast.

A majority of these writers are apparently unaware that there is any competition in the field of educational journalism here in California.

They know that when the *California Teacher* expired, eight years ago, until 1877, when the JOURNAL was established, there was no educational publication. They know that from 1877 to 1880 the JOURNAL occupied the field alone. They know that in 1880 the JOURNAL (aided by the same hearty and unanimous support which now indicates its good will in these letters) had established itself permanently, on a sound basis; then the Legislature stepped in, and availed itself of its circulation and influence, and passed the law to enable the State Department of Public Instruction to use it as its official organ.

Everybody knows that then an educational nondescript sprang into being, parasite-like, attempted to suck itself into existence at the public crib, and failing, died, leaving "not a wrack behind."

But everybody does not know that we now have to contend against a repetition of this thing; that is why these letters have been sent out, and why the replies received have given us such genuine gratification.

We wish here, however, not to be misunderstood. It was no uneasiness or doubt of the final result that caused us to send out our circular. The opposition is not of a character to give us any uneasiness; and the intelligence, the virtue, and conscience of the gentlemen composing the State Board of Education is such as to preclude the slightest feeling of anxiety in our mind.

We have not a word to say against the present owner and conductor of the sheet aspiring to rank as an opponent of the JOURNAL.

He has been spoken of and we hope he is an intelligent man, and a gentleman. But neither from his past associations, from his present occupation, nor from such evidences as we can see in his paper, does he appear to know what an educational journal is, what it is for, and what should be the incentive to its being. Education seems a matter altogether foreign to his actual life. His undertaking is another illustration of the impression prevalent among not a few otherwise sensible men, that to be educators (and sometimes even educators in that highest sense of the term implied in the conduct of educational journals or normal schools) all that is necessary is an education.

We emphasize here what we have so often said elsewhere, that to be an educator requires special preparation, special devotion, special adaptation to the great work of education.

But we are confident that the State Board will heartily agree with the nearly unanimous sentiment of our teachers, that a change in the educational administration does not necessarily imply a change in educational policy, and certainly not a change from the hands of educators to those of politicians.

PROFESSOR SILL ON HERBERT SPENCER'S "EDUCATION."

IN the February "Atlantic" Prof. Edward R. Sill, late of our State University, has an article on Herbert Spencer's Theory of Education. It is unnecessary to say to those who have even a casual acquaintance with him, or who have read his articles in the "Overland" and in the JOURNAL, that Prof. Sill thinks clearly and logically, and writes with force, brevity, and elegance.

But Prof. Sill is a man of strong convictions; and though not a narrow man, yet from the nature and range of his studies he is apt to reason within quite narrow bounds.

The Belles-Lettres is Prof. Sill's specialty; he is a bookish man, therefore perhaps too prone to place the study of "the printed page" ahead of the study of Nature.

Perhaps Prof. Sill has read Herbert Spencer more carefully than we have, but our construction of Spencer differs from his.

Prof. Sill takes exception to Spencer's advocacy of the method of nature, i. e., development by means of the concrete prior to the use of the abstract.

Spencer certainly does not dispense with the latter training, but leaves that for a period when the mind has become sufficiently matured to be able to grasp an abstraction. Will Nature, unassisted by books, ever lead man to the habit of abstract reasoning? Prof. Sill appears to think not.

We believe universal observation of barbarous races, the records of the beginnings of religious belief, the entire history of science and art go to show that Nature invariably leads man from the observation of her outward phenomena to the study of her hidden springs.

Again, Prof. Sill says:

"So, again, Mr. Spencer's words are often quoted in support of the attractive doctrine that education shall give boys to do only that which they choose to do. Their diet, according to this theory, would be plum cake and jam, and their reading would likewise be whatever was spiciest to the mental palate and easiest of mastication. Every parent and teacher knows something of what evils would follow this system, from his observation of the effects of the dime novel, and of our juvenile literature in general. A young person had much better read Shakspeare and Mr. Spencer."

The answer is obvious. Nature will not lead a boy to read the dime novel, though perverted nature may.

A boy trained as Mr. Spencer indicates very briefly in "Education," will probably know what to do; at all events, is not more likely to mistake his vocation in life than he who has been brought up by the abstract method.

The theory of Herbert Spencer contemplates all that Prof. Sill claims for the "written page." It claims that the boy shall be taught, if not the thing, at least

the where to find it. Oral teaching cultivates power of observation, analytic strength, accuracy of thought, and faculty for generalization.

Perhaps oral teaching and object teaching have not been a success. Has book teaching? And as Prof. Sill's method has had at least five hundred years' active trial, would it not be fair to give Spencer the field for a century or two?

A COLD WAVE TOWARD THE EAST.

NEW YORK CITY teachers are "finding out how it is themselves." Year after year, with commendable regularity, the Board of Education in that city had voted the school appropriation; it had been allowed by the Comptroller, and everybody was reasonably happy. But this year there is a new Comptroller, who knows all about the cost of education, can tell to a / just how solid a section of the three R's a dollar will buy, and who is not to be informed or instructed by either the Board of Education, the teachers, or the intelligence of that community.

So, having the power, he declares that the appropriation shall be two or three hundred thousand dollars less than is asked for.

The Board of Education thereupon first cut down salaries, closed the colored schools, and lopped off all special teachers of German, music, drawing, French, etc.

They then rescinded this action and appealed to the State Legislature. Thus stands the matter now.

It may give slight comfort to our New York brethren to know that we feel the same way in San Francisco about every spring; only, instead of having one hard-headed wisacre to deal with, there are here twelve.

This is, however, a redeeming feature, for in a multiplicity of such wisdom there is confusion.

And from this confusion of their enemies, the schools generally escape with comparatively little damage.

THE SCHOOL LIBRARY.

THE State apportionment has been made; there is money in the Library Fund; the book agent is abroad. Let the district trustees now be wary.

The State makes a magnificent yearly appropriation for the School Library. In a few years every country school-house in the State should contain a library which shall radiate beams of intelligence into every home in the land. A good school library is better than two assistant teachers; a badly selected library is worse than no teacher at all.

In our day, when there is no dearth of good books, readable books, fascinating books, it is "worse than a blunder, it is a crime," not to have a library filled with the best.

So our advice to trustees is, "Make haste slowly." Don't fill your shelves with expensive works that will never be read just because the book agent is pressing and the book bears the imprint of a great name on the title-page.

A great book has not necessarily a place in the District Library. There are

a hundred books which have a prior claim to even "Bancroft's United States" or "Irving's Washington." So, until the hundred are secured, resist the agent who would sell you Bancroft or Irving.

OUR ADVERTISEMENTS.

BOTH as regards number and character, our advertisements are especially worthy of note this month. Books and school furniture seem "the chief burden of their lay"; but one page is valuable, not only for its own intrinsic value, but by reason of the reminiscences it brings up. We refer to the advertisement of the "Marks' Vineyard Company" of Fresno. Mr. Marks is an old teacher, at one time foremost in leading the educational interests of the State. For ten years past he has been in Fresno developing the industrial resources of that region, and making a "wilderness blossom like the rose." Everything he has ever taken hold of has proved a success; we predict a like result for this new enterprise.

TO SUPERINTENDENTS.

WE hope superintendents will notify us promptly of any changes in their lists of district clerks. This notice is given especially for the benefit of new superintendents, though in many instances it is unneeded.

The greatest care is exercised in mailing the *JOURNAL* to the names sent us by the superintendent. If these are correct, there should be no failure to receive. In case of any complaint, we hope to be promptly notified.

OFFICIAL DEPARTMENT.

SUPERINTENDENT WILLIAM T. WELCKER, EDITOR.

In the middle of page 60 of the *SCHOOL JOURNAL* for February there is an error. The interpretation of section 1712 of the Political Code should be in the following language:

"Under section 1712 of the Political Code, I think that *no* portion of the library fund can be expended with propriety in the purchase of an organ."

DEAR SIR—Your note of the 15th instant is at hand. The seventh subdivision of section 1617 of the Political Code—school law page 15—gives the exclusive power of employing teachers to the board of trustees of the district; and of course the will of the majority is the will of the board. On this last point see paragraph marked 15 on page 38 of the school law.

MISS ——— Yours of the 14th instant is at hand. You inquire: "Is it lawful to make up lost time on holidays or Saturdays?" I think not. All operations of State Institutions should be suspended on legal holidays; and section 1697 of the school law, by a strong implication, seems to exclude Saturdays. Subdivisions one and seven of section 1617 give full power to Boards of Education and to Trustees in the matter of your letter.

DEAR MADAM—Your note of January 30th is at hand. By reference to the extract from the Political Code, printed on page 37 of the school law, and numbered 10, it will be seen that November 7th last past was a legal holiday, and that Christmas day is always one. Webster's Unabridged Dictionary defines a holiday: "A day of exemption from labor," among other descriptions. Also "the holidays"—"any fixed or usual period for relaxation or festivity, especially Christmas and New-Year's, with the intervening time."

I am authorized by Honorable F. M. Campbell to state that during his administration as Superintendent of Public Instructions, there was a decision by the attorney-general that whenever a holiday fell upon a school-day the teacher was entitled to pay as though the school had been kept on that day. And this seems to me sound law and justice, in any case where the teacher is excused by the trustees, or by any higher authority, as for instance, the statute law.

It is no fault of the teacher's that the school was not kept on the holiday; and the teacher has a right accruing under the contract which cannot be taken away.

But after representing these ideas to the trustees, if they still maintain their attitude—which I hope they will not—it might be better to submit to a small loss than to enter into a controversy and litigation with them.

DEAR SIR—In my opinion, a lapsed certificate—one which has completely expired—cannot be renewed. It was for a stated period; its time having run out, it no longer has validity or life; it does not exist. And so of other officers; they cannot perform the functions of their offices after the expiration of their commissions. And secondly, if a certificate issued to renew an expired one, as above described, is invalid, so would be a recommendation to the State Board of Education founded upon it.

DEAR SIR—In answer to your favor of January 31st, I have this to say: That in my opinion the tax of forty-five cents for school purposes was properly drawn upon by the trustees. They drew upon it for school purposes, and for no other purposes. They had a right to draw upon it for school purposes, and they had a right to draw on it for no other purpose or purposes.

Section 1830 of the Political Code provides that the board of trustees of a district may call an election in the district, by which it shall be determined whether the people in that district will submit to a tax by which additional school facilities shall be furnished. The tax of forty-five cents was obtained under this section, and the result of this election—the money raised by this taxation—should have been and was expended by the district trustees in the purchase of those things which I understand the law to mean by additional school facilities.

The money raised by the issuance of bonds was an entirely different and distinct matter, and these bonds were issued under provisions of the Code which are entirely different and distinct from those under which the above-mentioned tax was levied, and the funds obtained by the issuance of these bonds could be used for one purpose, and for one purpose only. The money obtained by selling these bonds can be used only for the purpose of erecting school buildings, or purchasing one or more school-houses, and furnishing the same, and for liquidating the indebtedness of school-houses already built. This money is used in connection with *school houses* only, as will appear by the language of section 1880 of the Political Code. These funds being entirely distinct, and for different purposes, no portion of the first fund can be used for the payment of the interest on those bonds through whose instrumentality the second fund is created.

Under section 1887 it is the duty of the Board of Supervisors to provide for the payment of this interest by another method. They must create a fund for the payment of this interest by levying a tax for that purpose at the same time that they levy taxes for the county purposes. If they have failed to provide for the payment of this interest in this way, they certainly have no right to resort to that other special fund for this purpose.

The language of section 1543 of the Political Code, subdivision third, satisfies me that you are correct in your opinion that the "bills for building should have been settled by trustees, by order on county superintendent, and paid by auditor's warrant on treasurer, in the usual course." If this had been done, there would have been a record of the fact in your office, and under the language of subdivision third of section 1543 this certainly should have been done.

It does not seem to me, however, that there ought to be any record in your office, nor does it seem to me that there is any law under which a record would be created in your office of the fact that an election had been called to determine whether or not a tax should be levied for school purposes.

Sections 1835-6 of the Political Code determine this question, and the language of section 1836 is: "The trustees, upon the receipt of a certificate of the fact [by the officers of election, that the election has resulted in favor of levying a tax], must report the same to the Supervisors," etc. They report *directly* to the Supervisors.

Without looking up the duties of the county treasurer, it strikes me that it is not his duty to report to you the amount of money on hand in the shape of school funds in the treasury. He reports such facts to the auditor, and the auditor keeps a record of these funds open to the inspection of the public.

In regard to the matters contained in your letters, you had better consult fully with the district attorney of your county, as you will be able to explain the facts of the case to him in detail.

DEAR SIR—Your letter of the 2nd instant is at hand. I think that section 1876 of the Political Code forbids any trustee from rendering any services whatever that are to be paid for by the board of which he is a member.

In reference to article 1621, I think that when the year ends in which a school has been maintained for eight months, that the balance remaining may be used by the trustees for any of the purposes which are or might have been claims outstanding, up to the time when they shall determine to use it for the year succeeding, and have it merged with the funds for that succeeding year.

If the trustees have caused the balance on hand at the end of last year to be

merged with other funds, then I agree with you that they must again wait until an eight months' school has been reported.

In reference to section 1552, my opinion is that in counties in which county officers are paid in a uniform manner, the superintendent of schools must be paid in that manner; but where, as in your county, some of the officers are paid monthly and others quarterly, for reasons dependent upon their fees, the superintendent of schools should be paid monthly, because those reasons do not apply to him.

Miss ——— According to subdivision ten of section 1521 of the Political Code, educational diplomas can only be granted to such persons as have held a first-grade State, city, or county, or city and county certificate for at least one year; and *shall furnish satisfactory evidence of having been successfully engaged in teaching for at least five years.* Of course satisfactory evidence of the fact that you had been successfully engaged in teaching at least five years was furnished to the State Board of Education, and your educational diploma was intended by them to be the evidence of that fact.

Satisfactory evidence, however, is that kind of evidence which satisfies the mind of the person or persons who are to be satisfied.

Undoubtedly, then, county Boards of Education have a right to examine into your qualifications, and it may be that this process alone will furnish to their minds *satisfactory* evidence; but it has been the almost universal practice for them to consider a State educational diploma satisfactory evidence.

DEAR SIR—There is no provision of law which permits the diversion and use of the moneys of a fund for any purposes other than those purposes for which that fund was created.

Your action and proposed action in the premises is, in my opinion, in all respects correct.

DEAR SIR—Your favor of the 16th instant is at hand. The pressure of business in this office will, I trust, excuse a brief answer. I am in the midst of the apportionment of the State school money to the several counties of this State.

First. I have no authority by law to require county superintendents to notify district trustees of intended visits or examinations. Besides, it may be that they would prefer to come unheralded, so as to see things going on in their usual routine.

But I doubt not that any trustee or patron, upon request, would be furnished by the county superintendent with the results of his examination.

The right of parents to know the condition of schools and their progress is, I think, undisputed, and their interest in such matters should be courted and encouraged.

I think that most educators will disagree with your views on the subject of recesses. They are generally satisfied that recesses are not merely beneficial to the health, happiness, and educational progress of the pupils, but absolutely necessary to them.

DEAR SIR—The Superintendent of Public Instruction has referred your letter to me, and has directed me to render the decision of this department thereon. I have the honor to submit the following views upon the subject :

In reading one of the life diplomas which were granted before the new Constitution took effect, I find the subject-matter of the diploma to consist of the following language : “ Satisfactory evidence having been granted to the State Board of Education that, by superior scholarship and long and successful experience, he [the person to whom the diploma is granted] is worthy to be admitted to the highest honors of the profession of teaching. This diploma entitles the holder to teach in any public school of this State, and shall be valid during life.” I suppose that your diploma is identical in form with the one to which I have referred. If this is the fact, I feel satisfied that you have in you a vested right that cannot be taken from you by the State.

In 12 Wheat. 260, you will find this language by Thompson, J. : “ As I understand it, the law of the contract forms its obligation.” In the case of your diploma, the obligation was to be found in the language of the law which warranted its issuance.

No law, whether it be a section of a State Constitution or an act of the Legislature, can impair that obligation. “ Contracts, the parties to which have a vested interest, and those only, it has been said, are those about which the Constitution is solicitous, and to which its protection is extended.”—Dart. College case, 4 Wheat. 641.

You acquired a *vested interest* for the term of your life when your life diploma was given to you, if it be identical in form with the one to which I have referred.

This contract was not what is denominated a voluntary contract ; for the State, in consideration of the fact that you had during the course of long years gradually prepared yourself to confer certain benefits upon its school children, granted to you this diploma ; but if it is claimed, by way of objection, that this is a voluntary contract, the objection is answered by the language of Chief Justice Marshall in this case, at page 683 : “ A gift completely executed is irrevocable. The property conveyed by it becomes, as against the donor, the absolute property of the donee ; and no subsequent intention of the donor can change the rights of the donee.”

This diploma constitutes a property which is vested in you for the term of your natural life ; but if it be objected that this is not a correct proposition still you have a right in you which cannot be impaired. At page 689 of this same report is the following language : “ Another objection . . . is that no grants are within the constitutional prohibition except such as respect *property*.” Page 700 : “ Mere naked powers, which are to be exercised for the exclusive benefit of the grantor, are revocable for that very reason. But it is otherwise where the power is to be exercised in aid of a right vested in the grantee, . . . for it then sounds in contract, and is *coupled with an interest*.”

The Dartmouth College decision is one, the truth of which will not be questioned by a judge if he understands it.

Very respectfully,

ADAIR WELCKER,
Deputy Superintendent Public Instruction.

SCIENCE RECORD.

THIS RECORD is under the editorial charge of Prof. J. B. MCCHESENEY, to whom all communications in reference thereto must be addressed.

ONE of the most wonderful discoveries in science that has been made within the last year or two is the fact that a beam of light produces sound. A beam of sunlight is thrown through a lens on a glass vessel that contains lampblack, colored silk, or worsted, or other substances. A disk having slits or openings cut in it is made to revolve swiftly in this beam of light, so as to cut it up, thus making alternate flashes of light and shadow. On putting the ear to the glass vessel, strange sounds are heard as long as the flashing beam is falling on the vessel. Recently a more wonderful discovery has been made. The beam of sunlight is made to pass through a prism, so as to produce what is called the solar spectrum, or rainbow. The disk is turned, and the colored light of the rainbow is made to break through it. Now place the ear to the vessel containing the silk, wool, or other material. As the colored lights of the spectrum fall upon it, sounds will be given by different parts of the spectrum, and there will be silence in other parts. For instance, if the vessel contains red worsted and the green light flashes upon it, loud sounds will be given. Only feeble sounds will be heard when the red-blue parts of the rainbow fall upon the vessel, and other colors make no sounds at all. Green silk gives sound best in red light. Every kind of material gives more or less sound in different colors, and utters no sound in others. The discovery is a strange one, and it is thought more wonderful things will come from it.

DISCOVERY OF DIAMONDS IN BRAZIL.—Often, down to 1729, the gold-hunters had noticed in the bottoms of the bowls in which they washed the river sands little bright crystals, to which they attached no value. The brilliancy of these crystals, their hardness, and their regular form, as if shaped by the hand, had indeed attracted the attention of the miners, and many had saved them to use as counters in play; but gold alone had any value in the eyes of these adventurers. At this epoch, according to the least uncertain tradition, a monk who had taken part in the search for diamonds in India recognized the nature of these counters. He told his discovery to a certain Bernardo da Fonseca Lobo, who made it known in his name to the Portuguese Government. The king immediately took possession of all the lands where the presence of diamonds had been recognized, and where it could be suspected. Bernardo received as his reward the title of Royal Notary, and the command of the militia of the most important city of the region. The name of the monk was forgotten. I do not believe that the name of either could have been popular at Minas, for their discovery, which threw hundreds of millions into the treasury of the kings of Portugal, was the origin of one of the most despotic rules that any country ever had to endure. The first diamonds were found in the sands of the brooks; and these sands—or, to use the Portuguese expression, which has passed into nearly all languages, *cascalhos*—still constitute the beds that are principally worked. But beds of an entirely different nature, situated, like mines of metals, in the midst of the strata, and of corresponding depth, have been brought to notice in later years.

HERR STEBLER'S researches do not confirm the theory that light hinders germination of seeds generally. He admits the probability, however, that light may not be advantageous in the case of seeds that germinate quickly and easily; such as clover, beans, or pease. He says that the germination of certain seeds, especially those of the grasses, will not take place at all, or with great difficulty, in darkness.

MATHEMATICS DEPARTMENT.

This department is under the editorial charge of PROF. HAMILTON WALLACE, Superintendent of the Salinas City schools. All communications in reference hereto should be addressed to him.

INTRODUCTORY.

THIS department is the consequence of a conviction that a portion of the PACIFIC SCHOOL JOURNAL, devoted to the pedagogics of such mathematics as falls within the sphere of practical school work, will be acceptable to teachers. It is the opinion of the editor that the general plan of the department should be that of mathematical miscellany, consisting of notes, problems, and methods submitted as suitable for publication. Should such facts as time and capability permit, the matter thus submitted will be discussed by the editor, otherwise it will be published with the expectation that those readers who are able to respond may forward their results for insertion in a subsequent issue. Practical school work doubtless embraces elementary work—arithmetic, algebra, and geometry—and matter submitted must be limited with sufficient strictness to these to be *useful*. Practical knowledge of the science is needed, and this department must embrace only such elements as will tend to secure this end. The success of the enterprise will be assured if it shall be able to secure the co-operation of all who may be presumed to read it. Without this co-operation, the editor will certainly fail to give to the department that character for accurate learning which it should possess. He doubts his ability to perform editorial labor in a proper manner, and to conserve his work to that which is of practical value to teachers; but he relies upon the kind indulgence of all who would esteem such a project as useful if properly conducted. He is grateful to the editor of THE PACIFIC SCHOOL JOURNAL for the advance indorsement of appointment to this dignity, and his expressed confidence in his competency to prosecute it to a successful issue. He will be very happy if this confidence shall not prove to be misplaced, although he has no small trepidation, and but little hope of realizing this pleasure.

CONCERNING SOME DEFINITIONS.

Quantity is anything that may be increased or diminished, \therefore mathematics is the science of anything that may be increased or diminished. Zero expresses that which is incapable of becoming greater or less; ∞ expresses likewise, expresses a like idea. Neither is therefore subject-matter of mathematical science. What then falls within the sphere of the subject? Answer: The properties, relations, and measurements of all forms of quantity between, and embracing that which is so small that if decreased by any subtrahend would be nothing, and that which is so large that if augmented by any increment would become ∞ . Neither that which is expressed by 0 nor that by ∞ is quantity. Investigation relative to them is metaphysical rather than

mathematical. Should our pupils be allowed to repeat "mathematics is the science of quantity," with so much flippancy, or would it be well to insist upon a proper comprehension of terms? Question: What classes must be expected to have distinct conceptions of the subject-matter of mathematics? what degree of familiarity with number and algebraic process is necessary? and what must be the teacher's method?

NOTE 1. It is primarily important that the pupil possess clear understanding of the fundamental truths of mathematics, and emphatically of those whose mastery is not most easy—the *definitions*. It is requisite that there be *definitions*—not merely those combinations of words in sentences sometimes accepted instead of them, *e. g.*, the definitions of fractions. We find from the text that it is a *broken number*—the term fraction (Latin, *fractus*) meaning *broken*; that it is one or more of the equal parts of a unit, etc. These and similar definitions are evidently absurd, because inconsistent with fundamental conceptions of number. Number, whether abstract or concrete, is composed of units, and unity in the abstract is not susceptible of division. The only manner, therefore, in which a number can be *broken* is into less numbers, into the units which constitute it. The ultimate division of number is into units, and there is no number below a unit. Therefore, if the definitions usually given be correct, there is no such thing as a fraction. Will some reader kindly suggest a *definition* of fraction?

NOTE 2. Numeration is *verbal*, *literal*, or *symbolical*. The first is the representation of numbers by spoken or written words; the second by letters, as L, D, M, etc.; the third by symbols, as 1, 2, 3. There seems to be no sufficient reason for preserving the distinction between *notation* and *numeration*. It is useless, or worse, for it omits *counting*, which is neither reading the written nor writing the spoken number. Numeration is *specific*, and is preferable to notation.

NOTE 3. Arithmetic is *specific*, algebra *generic*. The former investigates numbers, abstract and concrete. Every number is represented by one or more of the Arabic characters, called figures, and each figure symbolizes a *specific* number, and the order of the unit is indicated by the *place* occupied by the symbol. The latter treats of the relations of *abstract* numbers, and each, whether large or small, integral or fractional, rational or surd, is represented by a *generic* symbol, as a letter of the alphabet. Its character is denoted by the *generic* nature of its symbols; the former by their *specific* nature. The expressions *literal* and *numerical* quantities should be discarded, because the *generic* symbols, as a, b, c, as truly represent number as do the *specific* symbols 1, 2, 3. The distinction should read *algebraic* and *arithmetical* symbols of numbers.

NOTE 4. Required a good method of teaching long division.

NOTE 5. How should such expressions as $6 \times 5 \div 4 \times 7$ be taught, and what is the value of it?

NOTE 6. How should $2 \div 2 \div 2 \div 2 \div 2 \div 2$ be taught? to what is it equal?

SPELING REFORM DEPARTMENT.

This department is under the editorial charge of a comitee apointed by the Branch Speling Reform Asosiation of California. MIS KATE KENNEDY, A. L. MANN, and MRS. THOMAS VARNEY constitute this editorial comitee. Al communications for the department must be adrest to them.

The comitee apointed at the last meeting of the "State Teachers' Association," consisting of James Denman, A. L. Mann, T. O. Crawford, Kate Kennedy, Mrs. Thomas Varney, and Albert Lyser, met at the office of the JOURNAL on Saturday, Feb. 17th. Mr. C. B. Towle, of Vallejo, the other member of the comitee, was absent.

Mr. Denman said that the State Asosiation had empowered this comitee to devise plans for aiding the reform; he therefore moved that this comitee resolve itself into a nucleus for a branch of the National Speling Reform Asosiation. Motion carried.

He further moved that an organization be efected by the election of T. O. Crawford as president, and Albert Lyser as secretary and treasurer. Carried.

It was further carried that this comitee act as the executive comitee for the ensuing year.

Temporary organization was completed by the election of the folowing officers:

First vice-president, James Denman; other vice-presidents, J. C. Gilson, Alameda; C. B. Towle, Solano; Mr. Hibbard, Butte; Freeman Parker, Sonoma; Hon. S. L. Terry, San Joaquin.

Editorial comitee, A. L. Mann, Miss Kate Kennedy, Mrs. T. L. Varney.

Mr. Denman moved that the editors prepare an outline of the reform they recomend for adoption by the asosiation, and for use by the teachers of the State. Carried.

He also moved that the twenty rules of the Filological Asosiation be adopted in al communications of the editors for publication. Carried.

It was carried that the secretary notify teachers that a meeting of al interest in the reform of our speling wil be held in the office of the JOURNAL at 1.30 p. m., on Saturday, March 10th. A constitution and by-laws will then bẽ adopted. A comitee, consisting of Mrs. Varney, the president and secretary, was apointed to draft a constitution and by-laws. The comitee then adjourned to meet on Saturday, March 10th, at 1.30 p. m.

ALBERT LYSER, Secretary.

Teachers are cordially invited to atend this meeting.

SPELING REFORM.

THIS question is every day asuming a more definit and practical shape. The stage of ridicule is over, ther is no longer eny activ opposition, and all objections ar found to vanish like smoke hwen the subject is examind. Altho the great waste of time entaild by our present cumbrus orthograpy is the

most aparant evil, yet the leading filolojist of the world avers that the illojical habits of thought, and the deep distrust of the reasoning faculties enjendered by such a complication of falsehoods on the very threshold of life; is more deplorable stil.

The time is now ripe for sum conserted action. The Inglish and American advocates of a Reformd Orthograpy ar about to hold an international convention for the purpus of adopting simbols for the unrepresented sounds of our language. It is to be hoped they wil succeed in aranjing a cumplete fonetic alfabet; for until we hav a recognized simbol for every sound the great superiority of a fonetic sistem over the present wun cannot be made plain to the jeneral public. But tho *leading* reformers advocate the immediate introduction of new fonetic simbols, the majority ar in favor of making haste sloly, and doing hwat we can with the alfabet at our command.

California is sumhwat behind the times on this question of reformd speling, for altho we hav meny earnest wurkers, they hav hitherto had no chanse for conserted action; but at the late meeting of the State Teachers' Institute the subject was referd to a committee with power to act, and a State Asociation is about to be formd to afiliate with the National Asociation. The apointed committee met at the offis of THE SCOOL JURNAL, and after having organized the society, agreed to recomend the adoption of the following twenty rules aproved by the Inglish and American Filolojical Asociations.

(1.) Drop silent *e* when fonetically useless, as in liv, vinyard, believ, bronz, singl, engin, granit, earn, raind, etc. (2.) Drop *a* from *ea* having the sound of *e*, as in fether, lether, jelous, etc. Drop *e* from *ea* having the sound of *a*, as in hart, harkn. For beauty uze the old beuty. (3.) Drop *e* from *eo* having the sound of *e*, as in jepardy, lepard. For yeoman write yoman. (4.) For *o* having the sound of *u* in but, write *u*, as in abuv, duzn, sum (some), tung, and the like. For women restore wimen. Drop *o* from *ou* having the sound of *u*, as in jurnal, nurish, trubl, ruf (rough), tuf (tough), and the like. (5.) Drop silent *u* after *g* before *a*, and in nativ English words, as garantee, gard, gess, gest, gild, gilt. (6.) Drop final *ue* in apolog, catalog, etc.; demagog, pedagog, etc.; leag, coleag, harang, tung. (7.) Spel rhyme rime, and drop *i* in parlament. (8.) Dubl consonants may be simplified: drop final *b, d, g, n, r, t, f, l, z*, as in eb, ad, eg, in, pur, but, bailif, dul, buz (not all, hall). Medial before another consonant, as batl, ripl, writn (written). Initial unacsented prefixes and uther unacsented sylabls, as in abreviate, acuze, afair, etc.; curveting, traveler, etc. (9.) Drop silent *b*, as in bom, crum, det, dout, dum, lim, num, plum, sutl, sucum, thum. (10.) Change *c* back to *s*, as in sinder, fierse, hense, onse, pense, scarce, sinse, sourse, thense, tierse, whense. (11.) Drop the *h* of *ch* in camomile, coler, colera, melancoly, scool, stomach. Change *ch* to *k* in ake, anker (anchor). (12.) Change *d* and *ed* final to *t* when so pronounst, as in crost (crossed), lookt (looked), etc., unless the *e* affects the pre-seding sound, as is in chafed, chanced. (13.) Drop *g* in fein, forein, soverin. (14.) Drop *h* in agast, burg, gost. Drop *gh* in hauty, tho (though), thru (through). Change *gh* to *f* where it has that sound, as in couf, enuf, lafter, tuf, etc. (15.) Drop *l* in coud, and *p* in receit. (16.) Write *f* for *ph*, as in

filosofy, sfere, etc. (17.) Drop *s* in aile, demene, iland. Change *s* to *z* in distinctiv words, as in abuze, v., houze, v., rize, v. (18.) Drop *c* in sent, sithe (scythe). (19.) Drop *t*, as in cach, pich, wich, etc. (20.) Drop *w* in hole.

All hwo ar interested in the advansment of education should use their influense to hav those obviously reasonabl improvements jeneraly adopted, and if our leading jurnals could be indused to follow the exampl of *The Home Jurnal* and other Eastern papers, and introduse into their daily issues a few of the simplest of the abuv rules, it woud hav the efect of making the eye familiar with *good* speling, and thus greatly promote the wurk of reform. K. K.

THE PUPILS' CORNER.

THIS department, which will consist of new, and in many cases original, declamations poems, dialogues, music, and games, suitable for Friday afternoon exercises, will be under the editorial charge of MRS. ALICE LYSER. Teachers who have matter for the department, or suggestions in regard to it, are solicited to send communications to her address at this office.

SCHOOL-ROOM GAMES.

PRIZE QUESTIONS FOR THE HISTORY CLASS.

CHARACTER HINTS.

- | | |
|---|--|
| <p>1. My first is a gentleman very unique,
Upparalleled, A No. 1, so to speak.</p> <p>2. Two men engaged in a fiendish plot;
The good was hanged and the bad was not.</p> <p>3. Shrewd and miserly, witty and wise,
He brought down fame—by a string—from the skies.</p> <p>4. A ripe, red apple gave him the clew,
His dog a candle overthrew.</p> <p>5. In England and France three cardinals great,
Who ruled the people, the king, and the state.</p> <p>6. He threw an inkstand at Satan and bade him be quiet;
A Diet of Worms was his principal diet.</p> <p>7. The greatest writer known to fame,
And no one knows how to spell his name.</p> <p>8. A knave on the woolsack, a god with his pen,
"The greatest, the wisest, the meanest" of men.</p> <p>9. An old man hanged one terrible day,
But his soul is marching on for aye.</p> | <p>10. Crossing a rivulet made him great,
He smoothed down his mantle and met his fate.</p> <p>11. A very remarkable pioneer,
Mixed up somehow with an egg, I hear.</p> <p>12. Amid many a nation and peril he strayed,
Saved once by a compass and once by a maid.</p> <p>13. A queen who was witty, vain, learned, and bold,
Once cruel, once loving, a terrible scold.</p> <p>14. Amid battle and bloodshed her white pathway led
From a sheep-farm, through fame, to a fiery bed.</p> <p>15. He lived and died and left no trace;
Is famed though no one saw his face.</p> <p>16. Wise, good, and brave, he nobly reigned,
His hostess once of him complained.</p> <p>17. He won a certain mighty game;
His opponents bore his Christian name.</p> <p>18. He freed the land that holds back the sea;
By a little spaniel saved was he.</p> |
|---|--|

19. Sprung from a cabin, our chosen guide
Shot by a man, in a barn that died.
20. The king of the world at thirty-two,
Died since he could not himself subdue,
21. A blind old man of a mighty song,
Who did his three daughters a pitiful wrong.
22. He hid in a cellar a powerful thing,
That would ruin his rulers and ruin his king.
23. The most glorious modern murderer, he
Died on an isle in a lonely sea.
24. A twinkle, a tear-drop, a broad, hearty grin,
That wrote of a cricket, a raven, an inn.
25. Gold, armor, and retinue, all could not save ;
His noble discovery was changed to a grave.
26. Oh, fickle their fortune to rulers that cling !
He died for the failure to give up a ring.
27. He went to the heart of a continent black,
Was found by a friend there, and would not come back.
28. He was slain by one of a royal line,
Whose king was beaten over his shrine.
29. Best hated, best loved, false, beautiful, skilled,
Driven out of her land, by a sister-queen killed.
30. He made what would separate fiber from seed ;
His mighty machine caused the nation to bleed.
31. He canned up words ; he gave speech wings ;
A glorious light from his arches springs.
32. He wrote the words in a fiery hour
That freed the nation from foreign power.
33. From a curious blunder arose his fame ;
To the biggest thing ever found he gave his name.
34. He planted the acorn from which sprung the tree
That bore the fruit that now you see.
35. He dug a ditch between two seas,
Where largest ships could sail with ease.
36. His pathway through the desert led,
From salt-sea-bed to mountain-bed.
37. A coward, a prattler, an obstinate fool
A pedant, a king, an obedient tool.
38. He read a great poem before a great fight ;
He climbed up a cliff and he died on the height.
39. The greatest mocker that ever was born,
Religion his railing, and virtue his scorn.
40. He was, from historical records appears,
The greatest of all men who lived in his years.

A. R. WELLS.

Christian Union.

QUOTATIONS.

A CIRCLE is the most convenient way to sit in almost every game ; so group your chairs together, and designate some person to open the game with a quotation. (The author need not be given unless all the players are capable of it. Settle this before you begin.) Suppose he repeats :

“The quality of mercy is not strained :
It droppeth as a gentle gift from heaven
Upon the earth beneath. It is twice blessed ;
It blesseth him that gives and him that takes.”

When the quotation is finished, the speaker counts slowly up to ten, all the time that is allowed for the next person to give a question. Suppose he were to say, “A rolling stone gathers no moss,” and while he counts ten the next one cannot think of anything, not even a “Mother Goose” or “Pinafore” quotation, then he is considered “out,” and cannot quote until the next game, which begins when, one by one, all have failed to give a quotation during the counting of ten.

Scholars' Companion.

EXAMINATION QUESTIONS.

If the following questions are a fair type of the drill to which first-grade pupils in Boston schools are subjected, then we commend our best teachers to pattern thereon. [Ed. Journal.]

BOSTON SCHOOL EXAMINATION.

EXAMINATION FOR THE GRAMMAR-SCHOOL DIPLOMA.

[DIRECTIONS.—At the head of the sheet of paper which is to contain your answers, write your name in full, the name of your school, and the subject of this examination. Place before the answers the same figures or letters that are before the questions. Do not write in the margin. During the examination ask no questions concerning it. If a candidate receive help or communicate during an examination, the mark for that examination will be 0 c.]

GEOGRAPHY.—PART I. (From 9.10 to 10.30 a. m.)

1. (a) Draw an outline map of the United States, indicating (b) the principal mountain systems; (c) the great rivers of the central plain; (d) three rivers of the Atlantic slope; (e) two rivers of the Pacific slope; (f) the situation of two ports on the eastern coast; (g) of two on the southern coast; (h) of one on the western coast; (i) of two on the lake coast; and (j) of two inland cities. Write the names of these mountains, rivers, ports, and cities, in their proper places upon the map.

2. (a) Draw a profile (section-line) from New York to San Francisco. (b) Write upon it, in the proper place, the name of each physical region. (c) Write the words *agricultural, mining, manufacturing, grazing districts*, where they belong.

3. State the natural advantages of the cities indicated on your map, and the special importance of each.

4. Write as fully as time will permit, on one or more of the following topics: (a) The coast line and the Atlantic slope. (b) The central plain, including differences in climate, soil, and resources. (c) The western plateau region and the Pacific slope. (d) The comparison of the climate of the eastern and western coasts in the same latitude.

[Answers to the foregoing questions are to be collected at 10.30. Recess from 10.30 to 10.50.]

GEOGRAPHY.—PART II. (From 10.50 a. m. to 12 m.)

5. (a) What imports does Great Britain receive from her principal colonies? (b) Give the situation and exports of one port of Southern Europe. (c) Of one port of Northern Europe.

6. (a) What determines the place of the tropics and of the polar circles? (b) What are their special names, and why so called? (c) In what direction do the noonday-shadows fall in Boston? (d) In Buenos Ayres?

(e) Why? (f) On what day of the year are the noonday-shadows the longest in Boston?

Answer *either* of the two questions numbered 7.

7. (a) After the long night at Hammerfest, in what part of the horizon does the sun first appear? (b) Describe the changes observed in its daily course before another long night begins.

7. (a) At the end of his journey a traveler finds his watch two hours and a half faster than the local time. In what direction has he traveled, and over how many degrees? (b) Explain your answer.

8. Write as fully as time will permit, on one of the following topics:

Glaciers, and their effects.

Volcanoes, and lines of volcanic action.

The recent political troubles in Egypt.

The discovery, settlement, and growth of some country.

The following questions are taken from the February number of that excellent little paper, *The Pupils' Companion*. The questions in spelling we do not like; the manner in which they are presented violates an important principle of education. Some of the other questions are well-chosen. [Ed. Journal.]

ARITHMETIC.

1. How would you find the number of cords in a load of wood, the dimensions being given in feet? In inches? [Ed. Journal.]

2. Write 1882 in Roman numerals.

3. How many square rods in $2\frac{1}{2}$ acres?

4. In what two ways can this question be solved? If ten yards of cloth cost \$6, what will 50 yards cost?

5. What number increased by $\frac{1}{4}$, multiplied by $\frac{2}{3}$, divided by $\frac{3}{4}$, diminished by $\frac{1}{5}$, will equal 7-9?

6. What time after 2 o'clock are the hour and minute hand together?

7. What is the sum of nine-tenths, five-hundredths, and ninety five-thousandths?

GRAMMAR.

1. Give a synopsis of the verb "go," in the potential mode, third person, plural number.

2. Correct the following:

Mr smith dear Sir i take my pen in hand to inform you that we are undergoing an examination and that if I survive i shall call to see you at 5 o'clock

yours Very Truly
X.

3. Parse *him* and *what* in the sentence, "I gave him what he wanted."

4. Why is "I seen" wrong?

5. Which is correct, "It is me," or "It is I"? Why?

6. Correct, "You ought to read slower."

7. Parse *what* in the following sentence:
"Ask for *what* you want."
8. How many cases can the infinitive have when used as a noun?

HISTORY.

1. Who was King of England during the American Revolution?
2. When did George Washington die?
3. What is the second oldest town in the United States?
4. How many children did Columbus have?
5. When was Georgia settled?
6. Who was the rider of the black horse at Saratoga?
7. What three Presidents died on the fourth of July, and which two died on the same day?
8. Who assassinated Henry IV. of France?
9. Who was the "Old Man of the Mountains"?
10. Mention four battles fought in Pennsylvania during the French and Indian War.
11. Who was the "hero of Tippecanoe"?
12. What did Mexico consider a sufficient cause for war?
13. What general gained three victories in one day?

GEOGRAPHY.

1. Name six branches of the Ohio.
2. In what zone is Iceland?
3. What is the highest mountain in the world?
4. What city is built on eighty islands?
5. Where and what is Smyrna?

6. What States occupied the North-west Territory?
7. What is the oldest city in the world?
8. Where was the first battle fought, and who commanded?

SPELLING.

1. Correct these words: Judgement, Reeceve, Sirkit, Fiegn, Annalyze, Bruse, Tenasious, Moveable, Appogee, Morallize, Chrystallize, Synonym, Solemly, Recom-mend, and Musilage.

MISCELLANEOUS.

1. What is a hippodrome?
2. What does it mean to *decimate*?
3. What is the meaning of LL. D.
4. Why is Christmas sometimes written Xmas.
5. What governor was elected by the largest majority ever known?
6. Where is Seneca Lake, and what object of interest at its head?
7. In what part of New York State are the Indian reservations, and what tribes are settled on them?
8. What village in New York, in nearly 77° west longitude, is named after a noted battle-field?
9. What river can boast of having carried the first steamboat?
10. What is coal?
11. How old is New York?
12. What man was with General Lee when he surrendered?
13. Mention sixteen American inventions.
14. What influence has Paris throughout the civilized world?

EDUCATIONAL INTELLIGENCE.

ALAMEDA COUNTY.—Educational interests in this county are progressing favorably under the administration of Supt. Fisher.

The people of the Mission San Jose have voted a tax of \$1,800, to build an addition to their school-house, and secure an additional teacher.

The Mission San Jose is a little village noted for the beauty of its surroundings and for the intelligence of its citizens.

The principal of the school, Mr. A. B. Pierce, is deservedly popular as a teacher.

Mr. Megahan, formerly principal of the Mission School, has succeeded Supt. Fisher as principal of the Washington Corners

School. Mr. Megahan is an intelligent and successful instructor. He has also been appointed Deputy County Superintendent.

A. P. Black, formerly of San Benito County, and more recently principal of the Fruit Vale School, has been promoted by his election to the principalship of the Tompkins Grammar School in Oakland.

Mr. Bush, principal of the Harrisburg School, has gone to Berkeley, and resumed his studies at the State University. His successor at Harrisburg is Mr. S. H. Buteau, a promising young teacher.

One of the best conducted schools in this county is the Alvarado School, of which Mr. C. V. Osborne is principal. A new

room has recently been completed and furnished, extensive additions made to the school library, and the school re-opened for a new term of greater efficiency and success.

SAN FRANCISCO.—The vacancy in the Washington Grammar School, caused by the appointment of Joseph O'Connor as Deputy Supt., was filled by the election of Selden Sturges as principal. This was a well-earned promotion, by which the Board did itself credit, and increased the general efficiency of the department.

Mr. B. L. Brown has been promoted to the vice-principalship of the Franklin Grammar School, made vacant by the transfer of Mr. Sturges.

Ex-Deputy Supt. Dudley C. Stone was elected Principal of the West End School. This position is altogether disproportionate to Dr. Stone's merits, but we believe it to be temporary only. As soon as some more fitting vacancy occurs, we are sure Supt. Stone will get it.

At a recent meeting of the Board, the position of evening school principal was abolished, and the Deputy Supt. was appointed inspector, at a salary of \$70 per month. The result of this action will be to lessen the cost of conducting the schools, with a decided increase in their efficiency. We have always believed that the deposed principal, Mr. Ham, was more efficient in securing additions to his salary than in managing his school.

SACRAMENTO.—Prof. Crittenden, a graduate of the State University, and lately teaching in the San Francisco evening schools, has been elected to the vice-principalship of the Sacramento High School, the position made vacant by the death of Kirke W. Brier.

SHASTA COUNTY.—We understand that Prof. C. M. Kellogg, under the supervision of the Board of Trustees, will conduct a "Sumner Normal" at Redding this year. Prof. Kellogg is himself a graduate of our California Normal School, and is eminently qualified to lead in an enterprise of this

nature. We predict a successful session of the school under his management.

MERCED.—Mr. Pedler, the Republican candidate for Secretary of State, found it necessary to go back to the school-room after the election in November. As he is an excellent teacher, he found no difficulty in getting a school in this county.

AMADOR COUNTY.—There is a very decided change for the better in the management of school affairs in Amador. The new superintendent, J. F. Chandler, is an intelligent gentleman, who attends faithfully to the duties of his office.

MONTEREY COUNTY.—The Monterey school opened with the old teachers, except Miss Eckhart in place of Miss Conover. The attendance is 185, divided as follows: Principal's room, J. A. Riley, 32; First Intermediate, Miss Eckhart, 33; Second Intermediate, Miss Gordon, 60; Primary, Miss Lorde, 60.

C. W. Pendleton has been engaged to teach the Natividad School.

Lindley School, near the Pajaro depot, opened last Monday under the management of G. W. Hursh.

SAN LUIS OBISPO COUNTY.—The *Mirror* of the 31st ult. says that the San Luis Obispo public schools opened the previous Monday with a large attendance. The teachers in the Court School are Professor Raines, Mrs. E. P. Rogers, Miss Jennie Doyle, Mrs. John Hamlin, and Miss Annie Murray; in the Mission school, Prof. D. M. Meredith and Miss Belle Churchill.

STATE OF NEVADA.—The School Trustees of Gold Hill have elected teachers as follows: Mrs. M. H. Swift, Principal of the High School; Mrs. Phelps, Assistant Principal; T. P. McDonald, First Grammar; Mrs. H. C. Mygatt, Second Grammar; Miss A. M. Sullivan, First Primary; Miss J. M. Kelley, Second Primary; Miss F. Robinson, Third Primary; Miss C. Henderson, Fourth Primary; Miss C. Moore, Assistant Fourth Primary. Divide School, Miss N. R. Lynch, Second Primary; Miss A. M. Potter, Third and Fourth Primaries.

NEWS RECORD.

Foreign and Domestic.

There were no less than thirty-five murders during the first week of the new year. The second week was one of storm and calamity. Several shipwrecks, a terrible boiler explosion in Pennsylvania, and fires, small and great, destroying much property.

Early on the morning of the 10th of Jan'y the Newhall House of Milwaukee, one of the largest hotels in the Northwest, was found to be on fire. At the time two hundred guests were in the building, of whom sixty-seven lost their lives.

The United States Senate passed the bill regulating the presidential succession. The bill provides, that in the event of the death or disability of both the president and vice-president, the members of the cabinet shall succeed in order thus: secretary of state, secretary of the treasury, secretary of war, attorney-general, postmaster-general, secretary of the navy, secretary of the interior; provided that whosoever shall thus succeed shall immediately call Congress to provide for a popular selection.

The intensely cold weather throughout the United States was followed by extraordinary rainfall, ending in disastrous floods, Pittsburgh, Pa., and Cleveland, Defiance, Fremont, Marietta, and Portsmouth, Ohio, have suffered the heaviest loss. Sections of Cincinnati are also several feet under water, and the Ohio River is still rising. Wabash, Ind., was at one time nearly submerged, the water rising to the second-story windows. At Parkersburg, W. Va., three hundred people are without shelter, and the mail is being delivered in skiffs.

The floods throughout the West and Southwest are reported as very disastrous to life and property. Hundreds of people are rendered homeless, and the distress seems to be in no way less widespread and intense than in the case of the recent great floods along the Rhine in Germany.

Trouble is anticipated between the factions of the Creek nation, and dispatches of the week say that unless all signs fail there will be a very bloody Indian war. Large shipments of arms, rifles, etc., have been sent on by the Meacham Arms Company to the disaffected nation in Missouri and Arkansas.

Joy runs riot in Zululand, for Cetewayo has been reinstated as King. About five thousand Zulus were present at the ceremony, and there were whispers of dissatisfaction among some of the chiefs at the conditions on which their royal master was restored to them.

GREAT BRITAIN.—The scheme for reform in Egypt includes the regulation of the

Suez Canal, and arrangements for withdrawing British troops from the conquered territory. The Khedive will be urged by the Government to abolish, as soon as possible, slavery and the slave-trade.

There was an appreciation of £5,178,167 in the value of Ireland's crops last year, as compared with 1881. It is claimed by Mr. Pigott, of Dublin, that £100,000 of the Irish land-league funds have not been accounted for. The O'Connor Don is to be appointed under-secretary of Ireland.

TURKEY.—A dispatch states that telegrams from official sources in Constantinople report that some Circassians attempted on Sunday to assassinate the Sultan. A woman divulged the plot. The Albanian body-guard met and defeated the Circassians in the vicinity of the Sultan's apartments. Several men were killed in the encounter. The threatened rising of the Mussulmans in the mountain districts of Eastern Roumelia is confirmed.

RUSSIA.—Increased precautions are to be taken against assassination in St. Petersburg. The budget for 1883 estimates the receipts at 778,500,000 roubles, and the expenditure at 100,000 roubles less. Accompanying the budget is a report which says a loan will be unnecessary.

GERMANY.—The Reichstag has rejected the motion of the social democrats for the repeal of the repressive laws. It is now estimated that the losses by the recent floods in Germany will reach 800,000,000 marks.

The Revolutionists in Ecuador, South America, have recently captured the port of Esmeraldas. The revolution against the Dictator Vientemilla seems to promise complete success.

The attention of Ireland during the past week has been fixed upon the Kilmainham Court, where the details of the tragedy in Phoenix park are slowly coming to light. The accused have dropped their arrogance and levity of manner, and are apparently conscious that they are in the toils, and that their chances of escape are every day diminished. Kavanagh, the driver of the car in which the assassins escaped from the park after the murders, has turned informer, and identified Brady and Kelly as two of the four men who engaged him, and Patrick Delaney and James Carey as being in the park when he drove up, just before the murders.

It must be regarded as an indication of the subsidence of the revolutionary and anarchical elements in Russia, that the Czar has issued a manifesto giving notice of his public coronation at Moscow on the 27th of May; at the same time, according to the "London Times," St. Petersburg has as-

sumed its normal appearance, the Palace is open to guests, and the programme of the Czar's movements is publicly announced.

Continuous and heavy rains have so swollen the Rhine and the Danube as to inundate large sections of country, destroying a vast amount of property and imperiling a great number of lives. The chief damage so far has fallen upon the valley of the Rhine between Mannheim and Mayence, at its juncture with the Neckar and the Main. Mannheim, which is the most important commercial city in Baden, is surrounded by water, and terrible disaster has resulted from the breaking of the great Rhine dam opposite the city. In the vicinity of Worms, fifteen miles north of Mannheim, ten thousand people are homeless. The dikes at Mayence have broken, and a considerable part of the city is under water; and at Dusseldorf the market place is flooded. At Vienna, the southern portion of which is open to inundations from the Danube, a thousand people have been driven from their homes, and at various other points of the two rivers great damages have been suffered. The floods are still rising, and the inundations are becoming so wide and destructive as to be a national calamity. The German government is taking measures to relieve the sufferers from the floods.

France loses its greatest man and Europe one of its foremost republicans in the death of Leon Gambetta, on the last day of 1882. He was a man of the people, coming into notice first as an audacious and brilliant advocate to the French bar; an orator of irresistible eloquence and force. The great calamity of the German invasion furnished the opportunity for which Gambetta was ripe, and by a marvelous energy, a lofty patriotism, a grand faith in France, he made himself the master spirit of that eventful period. When the questions relating to the settlement of French political institutions came up, Gambetta was the foremost man in France, and his influence was greatest in the shaping of the new republic.

The topic of interest in England just now is the changes in the cabinet. Hon. H. R. C. Childers has been appointed chancellor of the Exchequer, which office Gladstone had hitherto held, in addition to that of Secretary of the Treasury. Lord Derby has been made Secretary for India. Sir Charles Dilke is to enter the cabinet also as President of the Local Government Board. The charges are made with the primary object of strengthening the Liberal party.

There is a prospect of a new Irish famine. In view of evident pressure of the population on the means of subsistence, the fierce opposition of the Irish national league to emigration is unaccountable. There is great distress in many parts of the country, and appeals for aid are sent to England and America. A large meeting was held in

London on the 24th, and a committee appointed to take subscriptions to help the people in the needy districts.

FRANCE.—There are indications that general excitement there will culminate in a revolution. On the 16th, the walls of Paris were decorated with a manifesto from Prince Napoleon, arraiging the government, declaring that religion was being attacked, that the army was decaying, and claiming the throne of the Empire. The document was torn down by the police, and the Prince was imprisoned. The chambers indorsed the action of the authorities, and voted urgency for a motion prohibiting the residence in France or Algeria of any scions of the French dynasties. The government will induce a measure to govern manifestations by pretenders to the throne.

Prince Krapotkine, the leader of the Lyons Socialists, has been sentenced to five years' imprisonment and fined 2,000 francs for inciting to anarchy. A number of others received very heavy penalties, the decision of the judges causing a tumult in the court room.

Although the floods are receding in Hungary, 600 houses are still flooded at Mohacs, and half of them are wrecked. Those standing are uninhabitable by being filled with ice.

Dr. Jose E. Otalora was sworn in as President of the United States of Colombia on December 21, and a new cabinet was formed.

Gustave Dore, the celebrated French painter and designer, died in Paris January 23, aged 61 years.

GREAT BRITAIN.—Messrs. Davitt, Healy, and Quinn, the Irish agitators, charged with using seditious language, refuse to give bail for future good behavior, and will therefore go to prison. Austria, Germany, Italy, and Russia have agreed to accept England's policy on the Egyptian question.

The Peruvian Assembly has passed a resolution to treat for immediate peace with or without Bolivia, provided the republic retained its independence and is not stripped of all resources for regeneration.

It is reported that a complete understanding has been reached between Russia and Austria on leading political questions, and the differences regarding the navigation of the Danube have been arranged.

Turkey complains to the great powers that the recent note of England concerning its policy in Egypt is at variance with Turkey's admitted rights in that country.

Flotow, the German composer, died at Wiesbaden, Thursday, aged 71 years.

The Revolutionary party has triumphed in Ecuador, and the port of Esmeraldas has been captured. Alfaro has been appointed supreme dictator.

The powers of the International Tribunals in Egypt have been prolonged until February, 1884, by the Khedive.

From Panama it is reported that a new comet has appeared close to where the recent comet was last visible.

Prince F. C. Alexander, brother of Emperor William of Germany, died in Berlin, aged 82 years. The Hamburg-American line steamer "Cimbria" was sunk on Friday morning last, twelve miles south-west of Borkum, an island in the North Sea, having collided with the British steamer "Sultan." There were 477 persons on board the ill-fated vessel, and, as far as is known, only 56 have been saved, making a total loss of life 421.

There were 22 earthquake shocks in Murrica, Spain, on Tuesday, and several houses were destroyed.

The greater part of Kherson, South Russia, was destroyed by fire on the 16th inst.

Jan. 21.—A California express train on the Southern Pacific Road was dashed to pieces near Tehachapi, twenty persons killed and many injured. The steamer Cimbria, of the Humburg-American line, was sunk by the British steamer Sultan in the North Sea; nearly 450 lives lost. Wm. A. Seaver, the original editor of the "Editor's Drawer" in "Harper's Magazine," is dead.

Educational.

The following are but a few of the benefactions bestowed by recent philanthropy on educational institutions in the East and West:

The University of Vermont gets by the donation of Mr. John P. Howard, a stately brick building, three stories high, with the matchless views of lake and mountain that are given to the people of Burlington to enjoy. A bronze statue of Lafayette will occupy the park in front of the new building. Next year a new library building is promised, to contain the college library, including the 12,000 volumes collected by the late George P. Marsh. The present freshman class numbers 41, the largest in the history of the University; and 200 students attend medical lectures.

Mrs. Henry Edwards has left the Institute of Technology at Boston a hundred thousand dollars.

Mr. Andrew Carnegie, of New York, a native of Dunfermline, N. B., has given twenty-five thousand dollars toward the fund for the London College of Music, which has been acknowledged by the Prince of Wales with cordiality.

Vanderbilt University, Nashville, Tennessee, will receive \$125,000 from the estate of the late Sarah E. Atkinson of Memphis,

Tennessee, of whom it is the residuary legatee.

George Bancroft, the historian, has presented the city of Worcester, Massachusetts, with a free scholarship for the most apt pupil of its public schools.

Prof. Charles E. Hamlin, of Harvard University, has recently given a valuable gift of 100 volumes on chemistry and natural history to his alma mater, Colby University.

The late Edward Clark of Cooperstown, N. Y., has left \$50,000 to Williams College, his alma mater. His estate is believed to be worth \$30,000,000, and Williams College justly anticipated ample resources.

John W. Hollenback, of Wilkesbarre, Pa., has bequeathed \$50,000 to Lafayette College.

The Massachusetts Board of Education have unanimously re-elected Hon. John W. Dickinson as secretary of the Board, and Messrs. Hubbard, Walton, and Martin as State agents.

Hon. John Eaton, Commissioner of Education, delivered a lecture before the Union League Club, at New York, December 21st, on "Illiteracy as shown by the census of 1880." He said that there were in the United States over 3,200,000 colored persons, over 2,200,000 native white, and over 7,000,000 foreign-born whites who could not write. He said that all the present agencies for grappling with the problem of illiteracy are overtaxed, and that the only hope now was in aid from the general government.

From Com. Eaton's recently published report in the statistics of illiteracy, it will be seen Iowa leads the column in literacy, with reading as a test, and Wyoming Territory with writing; while South Carolina among the States, and New Mexico among the Territories, are at the foot of the column. Of native literacy, Massachusetts stands at the head, having only seven persons in each thousand who cannot write; and this small ratio increases to two hundred and seventy-eight in one thousand in Tennessee, and six hundred and forty-two in New Mexico. Rhode Island has the largest percentage of foreign-born illiterates—twenty-seven per cent. of the foreign-born population; while North Carolina has only three and three-tenths per cent. of foreign-born illiterates. The "black belt" of illiteracy is in South Carolina, Georgia, and Alabama, where eight hundred of each one thousand colored persons are returned as unable to write, though a larger portion may be able to read. Any person studying this table for a half-hour who does not see that the school question is the question of the hour must belong to one of the classes Governor Butler exempts from the responsible care of the State.—*New England Journal of Education.*

There are now 477 men teachers in New Hampshire, and 3,117 women; 82 less men and 91 more women than were em-

ployed a year ago. The average man is paid \$36 a month, and the average woman \$22. Supt. Patterson complains that many schools do not do thorough work; that they leave the boy's hands and eyes and ears untrained, cram his memory, and are visionary and absurd in their attempts to enlighten his understanding. Many of the teachers are considered incompetent as regards their own training. Better teachers must be hired and larger salaries paid them. The greatest cause for lament is found in the agricultural districts. The superintendent, though mentioning faults of the district system, does not hold it responsible for the deserted country school-houses. The State's school-children 15 years ago numbered probably 3,000 more than they do to-day.

The following from the *Indiana School Journal* may remind our readers of a somewhat similar experience in California. We have not heard, however, that they have destroyed their whole system of State certificates, as was done here because one man was found stealing questions. [Ed. Journal.]

"The readers of the Journal will recall what was printed some months ago in regard to selling examination questions, and the detection of the superintendent concerned. It will be remembered that Supt. Bloss became convinced that the questions came from Ziba F. Williams, superintendent of Martin county, and that he impeached him before his county commissioners. The commissioners found him guilty and deposed him, but he appealed the case to the Circuit Court, and so continued in office. The case was reached, re-heard, and decided against Williams."

President Carter is indefatigable in his labors for Williams College, and is meeting with very considerable success. He has largely increased the endowments of the college, added to its buildings, and given it new vitality in many directions. Better than all, he has made the college worthy of the most generous support by raising its standards of work in all departments, and adding to its facilities for the widest and highest work of teaching. It is safe to say that the college was never doing such thoroughly good work as to-day, and was never more worthy of the remembrance of men who are looking about for the best permanent investments for capital.

The annual reports of the president and treasurer of Harvard College have been published. The report of the treasurer shows the university to be worth \$5,198,377.43, yet to be embarrassed by a scarcity of free funds. The development of the system of elective studies has been carried a step beyond previous years by classifying under one head the courses of study open to graduate and undergraduate students, and throwing them open to indiscriminate selection by all students alike. This change

raises the number of courses in the college to 139.

Col. F. W. Parker, of Quincy fame and more recently of Boston, has been elected principal of the Cook County, Illinois, Normal School.

The best educational people of Chicago are rejoicing over their acquisition, and Col. Parker is probably equally well pleased. His work in Boston was evidently more hampered and unsatisfactory than at Quincy.

There is no denying it that Boston is just a little conservative; and that like some cities nearer home, she is not without educational barnacles clinging tentatively to her sides.

There is in England a "Teachers' Education Loan Society," that assists by loans without interest, promising female students who are unable otherwise to carry on their studies. It has been in successful operation for ten years.

Missouri has, next to Indiana, the largest amount of permanent funds devoted to school purposes in the Union. They aggregate \$9,471,696, not including the annual apportionment of State revenue. The State has a school population of 741,632, and of this number 488,000 are enrolled in the public schools. There are 8,822 schools in operation, conducted by 10,607 teachers, and last year \$3,468,738 were expended upon these schools.

The annual report of the schools of Cook County gives very encouraging figures. There are now 306 public schools in the county, in which there are 93,583 children enrolled. There are 197,610 children of school age in the county, of whom 129,896 attend either private or public schools. The public schools employ 1,607 teachers, and are open for an average of 8.78 months in the year. Male teachers receive an average of \$109, and female teachers \$61 per month. The schools own \$4,159,628 worth of property.

In New York City, there is considerable activity in educational methods, all tending to progress. The teachers' Manual is to be revised and its provisions made to conform to the present course of study. The methods of instruction recommended will be mainly suggestive. This will be a work of great magnitude, for it will reflect the advance in educational methods up to the present time. The time-table as at present arranged is to be abolished, and a minimum time per week for the subjects substituted. This will be a decided gain. That is, Language will occupy 5 hours; Arithmetic 3; Penning 2; Geography 1; Drawing 40 minutes; History 40 minutes; opening exercises 15 minutes; noon intermission 60 minutes. As the opening is at 9 and the dismissal at 3, there are 30 hours. These figure up 18 hours and 35 minutes, leaving 11 hours and 25 minutes

which the teacher can employ as it will do the most good.

The elements of plane geometry, algebra, bookkeeping, outlines of astronomy and perspective drawing are to be considered as permissible subjects. And finally, there is to be no publication in any form of the marks given at the examination of the applicants for admission to either college.

Personal.

Ex-Governor Stanford of California made a characteristic gift to the Princess Louise during her recent visit in San Francisco—a pair of the finest wool blankets made at the famous Golden Gate Woolen Mills in that city. The blankets were the finest ever manufactured there, and were adorned with the royal monogram worked in colors.

At the recent fire in Cambridge, Massachusetts, in the car shops, an engineer, wanting assistance in raising a ladder, called to a man near by, "Here, you, give us a lift!" The person thus addressed responded cordially, and when the engineer had time to look at him the assistant was found to be President Eliot of Harvard College.

Prof. Samuel S. Greene, LL.D., for more than twenty-five years professor of mathematics in Brown University, Rhode Island, and well known throughout the country as an author of several books on grammar and language, had a stroke of paralysis January 22nd, while on his way to college, and died in a few days thereafter.

Dean Bradley is to publish a volume of "Recollections of Arthur Penrhyn Stanley," Anthony Trollope's son an autobiographical memoir left by the novelist, and Robert Browning a new collection of poems, under the title "Jocoseria."

Professor Huxley's connection with Cambridge University, England, has become closer. He will deliver one of the regular courses of lectures there this year, and will act as an elector to the professorships of Anatomy and Physiology.

Joseph Cook gave a vigorous lecture on "The Spoils System," in the Brooklyn Academy of Music last week, in which he held Aaron Burr responsible for the system, and declared that "he was the first tyrant who introduced secrecy in politics."

From the educational chair to the governor's seat is not the usual order of political preferment. Happily, however, in South Carolina, honest work in the education of her citizens seems to be the "open sesame" for the higher honors. Col. H. S. Thompson, who for the last six years has held the office of Superintendent with acceptance to all classes and colors, has just been elected to the governorship.

General.

A English editor expresses his amazement that an unmarried lady should expatiate to married ladies on such a subject as "How to Wash a Baby." Such was the case, though. Thirty women listened the other night, in the Franklin Institute, Philadelphia, to Miss Mary Hobart's hints on baby-washing, which were illustrated with a live specimen lent for the occasion by a young mother in the audience.

John Bright's sister, Mrs. Margaret B. Lucas, said at a temperance meeting that women are the greatest sufferers by drink, and the hardest to convince as to the necessity of total abstinence. This may be so in England; we doubt the correctness of the fact in the United States.

When the Chinese Emperor, Quang-Su, saw the comet, he sent for the Astronomer Royal, who told him that it meant the gods were displeased with the Ministers of Worship and Public Instruction, and the ministers received their letters of dismissal a few hours later.

M. Gambetta's brain has been ascertained to weigh 1,100 grammes, or 35.56 ounces, which perplexes scientific men by its nearness to the idiotic standard, the average brain of an adult man being estimated generally at 49 ounces.

This seems to give strength to the opinion that there is no necessary connection between intellect and size of brain. We remember an instance in the case of Charles De Young of this city, a man of great mental grasp and extraordinary ability, whose brain weighed only 44 ounces.

Jenny Lind has offered to teach a number of free pupils in the forthcoming Royal College of Music in England—a royal offer.

A meeting was held recently in England, to establish a memorial to the late Prof. Balfour. The attendance included university men of all grades and many non-residents. Prof. Huxley's proposition that the memorial should take the form of a fund, to be called the Balfour fund, for the promotion of research in biology, especially animal morphology, was agreed to. It is further agreed that the proceeds of the fund should be applied (1) to establish a studentship, the holder of which shall devote himself to original research in biology, especially animal morphology; (2) to further, by occasional grants of money, original research in the same subject. An influential committee was appointed to collect subscriptions, and to draw up detailed conditions, under which, after a future meeting of subscribers, the fund may be affixed to the University. The fund started with the munificent contribution of £3,000 from the family of Prof. Balfour; nearly £1,000 more were subscribed before the meeting adjourned.

BOOK NOTICES.

Of the FRANKLIN SQUARE LIBRARY, we have received the following numbers during the past month:

Character Readings from George Eliot, selected and arranged by Nathan Sheppard, price 20 cents; Bid me Discourse, a novel, by May Cecil Hay, price 10 cents; James and Philip Van Arteveld, price 20 cents; and Black's Shandon Bells, price 20 cents.

This Library is issued weekly, and is sold to subscribers at the remarkably low price of \$10 a year. The literature furnished is what might be expected from the imprint it bears—always of the very best.

We have received several numbers of the *Pupils' Companion*, published by C. W. Hagar, 40 Bond Street, New York City. It is an excellent publication, well adapted to assist the teacher in the every-day work of the school-room.

AMERICAN MEN OF LETTERS. JAMES FENIMORE COOPER. By Thomas R. Lounsbury, Professor of English in Yale College. Boston: Houghton, Mifflin & Co. San Francisco: A. L. Bancroft & Co. Price, \$1.25.

Owing to a dying injunction, no authorized account of the life of James Fenimore Cooper has ever before been published. Mr. Cooper was a man of intense feeling, and his life-long quarrels with the Press of New York undoubtedly impelled him to keep his life and personality shut up from his contemporaries and from posterity. So the numerous sketches which have heretofore appeared of his life, have all been lacking that fullness of detail, and that accuracy of statement, necessary to a proper comprehension of a man's life-work.

Prof. Lounsbury's book before us contains much that is new; in fact, is full on all those points where previous biographies have been lacking. It is consequently a very valuable book.

Nowhere else will the student and reader find so thorough and sympathetic an account of the man who still ranks as the first American novelist.

A HANDBOOK OF ENGLISH AND AMERICAN LITERATURE, HISTORICAL AND CRITICAL, WITH ILLUSTRATIONS OF THE WRITINGS OF EACH SUCCESSIVE PERIOD.

By Esther J. Trimble, late Prof. of Literature in the State Normal School, West Chester, Pa. Philadelphia: Eldredge & Brother. Price, \$1.50. To teachers, for examination, \$1.00.

The awakening in the study of English is in no way more clearly shown than in the large number of recently published books on English literature. Some of these books are merely historical, others lay particular stress on etymology, some combine both of these points, and give, at the same time, some idea of rhetorical construction, give glimpses of the manner of each period, etc., etc.

The book before us is one of the latter class, and will be found a highly practical work for instruction in our literature.

The method of treatment is as follows: The work is divided into seventeen chapters, each chapter representing an era. Biographical sketches of the representative writers of each era are given, together with such facts of contemporary history as illustrate the subject. Brief glimpses of the manners and customs of each successive period are also given, in order to bring the student into closer sympathy with the writers; and this is done in an effective way by allowing the writers themselves to present "the age and body of the time" in some of their most striking passages. Lastly come characteristic extracts from many of the writers.

THE NOBLE KINSMEN, written by John Fletcher and William Shakespeare; and PERICLES, PRINCE OF TYRE, written by William Shakespeare. Edited by William J. Rolfe. New York: Harper & Bros. San Francisco: A. L. Bancroft & Co. Price, 65 cents per volume.

These are the two most recent volumes of Rolfe's edition of Shakespeare's plays. They are presented in the same excellent style, ample illustrations, copious annotations as are the preceding volumes of the series.

SOCRATES. A translation of the Apology, Crito, and parts of the Phaedo of Plato. In paper, cost about 40 cents. New York: Charles Scribner's Sons. San Francisco: A. L. Bancroft & Co.

We have put about 40 cents as the price of this book, for no price is reported with

the copy sent, and we feel that it is a volume which every intelligent person will be gratified to get in the English language. These essays or dialogues, descriptive of the last moments and last words of the man of whom it was said that "he died like a Christian," treating as they do of questions of human life, conduct, and immortality, possess an undying value.

In this volume, the translation is close to the original Greek, and yet in elegant, idiomatic English. The type is large and clear, and printed on heavy paper.

There are some explanatory notes at the end of the book.

THE GREATER POEMS OF VIRGIL. Vol. I. Containing the Pastoral Poems and six books of the *Æneid*. Edited by J. B. Greenough. Boston: Ginn, Heath & Co.

This is a splendid edition of some of Virgil's best work. The volume of 587 pages, printed on good paper, in large, clear type, with the copious notes well illustrated with 123 cuts descriptive of special points, and including 307 pages of "a special vocabulary to Virgil," covering his complete works, is the finest school edition of a classical author we have ever seen. Adjective and praise are superfluous; to be appreciated, the book must be seen.

THE RELIGIONS OF THE ANCIENT WORLD. Including Egypt, Assyria and Babylonia, Persia, India, Phœnicia, Etruria, Greece, and Rome. By George Rawlinson, M. A. New York: Charles Scribner's Sons. San Francisco: A. L. Bancroft & Co.

Prof. Rawlinson, so well known as the author of "The Five Great Monarchies," gives us here in a clear and attractive style, in a little volume of 249 pages, a succinct account of the great religions of the world. This is eminently a good book for the school library. It is not merely instructive, as showing the religious belief of ancient peoples, but gives quite a complete idea of their civilization.

SHORT STUDIES ON GREAT SUBJECTS. By James Anthony Froude. New York: Charles Scribner's Sons. San Francisco: A. L. Bancroft & Co.

This is the fourth series of Froude's essays under the above title, and includes six great studies, "Life and Times of Thomas Becket; The Oxford Counter-Ref-

ormation; Origen and Celsus; A Cagliostro of the Second Century; Cheneys and the House of Russell; and A Siding at a Railway Station."

No matter whether we agree or disagree with his conclusions, Froude is a writer always worthy of the closest attention. Great questions are treated in a becoming manner; and it is in the true spirit of the historian that he writes history. The intelligent teacher will find in these essays food for earnest reflection, as well as deep interest. The book is warmly commended for his reading.

HADYN'S DICTIONARY OF DATES, and Universal Information relating to all Ages and Nations. Seventeenth Edition, Containing the history of the World to the Autumn of 1881. By Benjamin Vincent. Revised for American Readers. Quarto, 796 pp. Price, \$6. Harpers, publishers. For sale at Bancroft's.

This is a book which will be found invaluable for reference in the district library. Its reputation, since the date of its first publication, in 1841, has been world-wide. It is a book which every library should have, and will certainly own, as soon as teachers make themselves familiar with its scope and use. We commend it to their attention.

THE BOOK OF FABLES. Chiefly from *Æsop*. Chosen and praised by Horace E. Scudder. With illustration by H. W. Herrick. Boston: Houghton, Mifflin & Co. San Francisco: A. L. Bancroft & Co. 80 pp. Price, 50 cents.

This little book is a marvel of beauty, adaptability, and cheapness. The stories are selected and "praised" so as to be useful in the early education of children. As Mr. Horace Scudder has done this work, and as Houghton, Mifflin & Co. have presented it, no more need be said. For supplementary reading in primary classes, or as a school library book, this little volume may be put to exceedingly good use.

THE CROSS OF MONTEREY, AND OTHER POEMS. By Richard Edward White. Published by the California Publishing Company. For sale by all booksellers.

In this little volume, containing some twenty odd poems, we find more than the jingle of words harmoniously strung together. The poems, as, e. g., *The Cross of Monterey*, *The Midnight Mass*, *Waiting for the Galleon*, *Discovery of San Fran-*

cisco Bay, Off Santa Barbara, Junipero Serra, etc., are all descriptive of the early times in California; pre-Argonautic times, or rather of the days when the true Argonauts were sailing hither and landing on these shores. In these poems, Mr. White shows the true poetic faculty; he is at one with his subject; he feels with the brave, old Padres; he is at home in the atmosphere which surrounded them.

This is true not only of the men and acts of which these verses treat, but the lines seems to us, somehow, in harmony with our California air, with the verdure, and the life—or rural life at least.

Several of these poems were republished in the JOURNAL at the time of their original appearance in exchanges; we hope to see further work from this author, and will gladly present it to our readers.

THE CLARENDON DICTIONARY OF THE ENGLISH LANGUAGE. By William Hand Browne, associate of Johns Hopkins University. The pronunciation by S. S. Haldeman, LL. D., late professor of Comparative Philology in the University of Pennsylvania. New York: University Publishing Co. Single copy for examination, 45 cents.

This is a handy word-book for ready reference. It gives words in current use according to best present English and American usage. Notation of pronunciation is made easy and convenient by phonetic re-spelling. It has scientific and other words of recent introduction into general use, and found only in late editions of cumbrous quarto dictionaries. The vocabulary is given in clear and distinct clarendon type. 18 mo. 372 pages.

A TEXT-BOOK ON THE ELEMENTS OF PHYSICS. For high schools and academies. By Alfred P. Gage, A. M., instructor in Physics in the English High School, Boston, Mass. Boston: Published by Ginn, Heath & Co. 1882.

The unequalled series of text-books for high schools published by this house finds a valuable addition in the book on physics now before us.

It is the first book published on natural philosophy which is based throughout on the scientific method. First, we have observation and experiment; from these the student deduces principles and definitions. Recognizing the truth of the theory of the

correlation of forces, and the conservation of energy, these are the central ideas kept prominent in the book, and serve to bind together all the departments of physics into a harmonious whole.

The problems given throughout the work are practical and numerous. An examination will commend it to the teaching public.

LITERARY NOTES.

The March number of the *North American Review* will contain, among other articles of striking interest, Money in Elections, by Henry George; Railway Influence in the Land Office, by George W. Julian; the Subjugation of the Mississippi, by Robert S. Taylor; and Gladstone, by Moncure D. Conway.

The March *Century* will have a biographical sketch of the late Dr. Leonard Bacon, by his son, Leonard Woolsey Bacon, of Norwich, Conn. The paper is appropriately entitled, A Good Fight Finished. An excellent portrait accompanies the paper.

Readers of William Cullen Bryant's poetry will readily remember the many verses addressed to his wife, who died in 1866. In addition to those that have been published, one dated "Roslyn, 1873," was found after Mr. Bryant's death, uncorrected and unfinished, which recalls her memory in a very tender way. It will be printed in the March *Century*.

Mrs. Runkle contributes to the March *Century* a plea for the higher education of women, with special reference to the recent movement toward admitting women to Columbia College.

The March *Century* contains two illustrated historical papers, The Migration of American Colonists, by Dr. Edward Eggleston, and The End of Foreign Dominion in Louisiana, by George W. Cable.

The *Atlantic* for March has the following excellent table of contents: Michael Angelo, Part Third, by Henry Wadsworth Longfellow; In Carlyle's Country, by John Burroughs; Antagonism, by Agnes Paton; A Loving-Cup Song, by Oliver Wendell Holmes; by Horse-Cars into Mexico, by H. H.; The Hawthorne Manuscripts, by George Parsons Lathrop; The Legend of Walbach Tower, by George Houghton; Tommaso Salvini, by Henry James, Jr.; One Woman; Port Royal, by J. H. Allen; The City of Earthquakes, by Horace D. Warner; etc., etc.

The March *Harper* contains, among other articles, the following: Across Arizona, by William Henry Bishop, illustrated; The French Voyageurs, by Thomas Wentworth Higginson, illustrated; The Phantom Ship, a poem, by J. W. De Forest; Artist Strolls in Holland, by George H. Boughton, A. R. A., illustrated; "Parsifal" at Baireuth, by Mrs. M. G. Van Rensselaer, illustrated; For the Major, a novel, by Constance Fenimore Woolson; Mrs. Claxton's Skeleton, a story, by Harriet Prescott Spofford;

Sir Christopher Gardiner, Knight, by Charles Francis Adams, Jr.; Torricelli, a story, by M. Howland; Lethe, a poem, by Mary A. Barr; The Morning-Star, an Indian superstition, by Benjamin Alvord; Shandon Bells, a novel, by William Black, illustrated.

St. Nicholas has the following table of contents: Frontispiece, The Broken Pitcher, after the painting by Greuze; The Broken Pitcher, by Mrs. J. W. Davis; The Wrong Coat, by Rose Terry Cooke; "A Learned Lawyer," Jingle, by J. E. Newkirk, illustrated by R. B. Birch; Ben Bruin, verses, by Lucy Larcom, illustrated by W. L. Sheppard; That Sly Old Woodchuck, by William O. Stoddard; The Sphinx, verses, by Anna S. Reed, illustrated by R. B. Birch; The Story of the Field of the Cloth of Gold, concluded, by E. S. Brooks, illustrated by R. B. Birch; A Japanese Funny Artist, by William Elliot Griffis, illustrated by Hokusai; Gretchen, a poem, by Celia Thaxter, illustrated; Where was Villiers? by Archibald Forbes, illustrated by W. H. Overend; The Tinkham Brothers' Tide-mill, chapters XIV, XV, and XVI, by J. T. Trowbridge, illustrated by J. H. Cocks; Emily, illustrated by the author, Mary E. Church; Mrs. Peterkin Faints on the Great Pyramid, by Lucretia P. Hale; The

Brownies' Feast, verses, by Palmer Cox, illustrated by the author; The Story of Viteau, chapters XIII, XIV, and XV, by Frank R. Stockton, illustrated by R. E. Birch.

The January-February number of *Education* has more than a hundred well-filled pages. There is the conclusion of Zalmon Richards' True Order of Studies in Primary Instruction; Country Schools, by Hon. James P. Slade of Illinois; Necessity of Education for the Working-Woman, by Evelyn Darling, Yellow Springs, O., and many other excellent articles.

Among the contents of the *Popular Science Monthly* for March are the following: The Growth and Effect of Railway Consolidation, by Gerrit L. Lansing; Queer Phases of Animal Life, by Felix L. Oswald, M. D., illustrated; Vivisection and Practical Medicine, by G. F. Yeo, F. R. C. S.; Evolution of the Camp-Meeting, by Joseph Parrish, M. D.; A South African Arcadia, by C. G. Buttner; Piratical Publishers, by Leonard Scott; A Chapter in Transcendental Pathology; The Pedigree of Wheat, by Professor Grant Allen; A Few Words about Eatables, by C. B. Radcliffe, M. D.; Sketch of Sir C. Wyville Thomson (with portrait).

FOR LIGHTER HOURS.

"All work and no play makes Jack a dull boy."

A CLEVER REPLY.—A very clever reply to a somewhat satirical remark was that given to Louis XIII. by Cardinal Richelieu, who was a nobleman as well as a priest. A celebrated archbishop of Paris, Hardouin de Beaumont de Perefex, was appointed preceptor to his majesty. One day he preached a notable sermon before the court of France, which touched principally upon the duties of the nobility. "Ah," said the King to Richelieu, "the preacher has thrown a vast quantity of stones into your garden to-day." "Yes, sire," answered the cardinal, "and a few have fallen into the royal park."

The Emperor Alexander of Russia, during the occupation of Paris, was present at the anniversary of one of the hospitals. Plates for contributions were passed round, and they were borne by some of the patrons' wives and daughters. The plate presented to the Emperor was held by an extremely pretty girl. As he liberally gave his louis-d'ors, he whispered: "Mademoiselle, this is for your beautiful bright eyes." The charming little damsel politely courtesied, and immediately presented the plate again. "What!" said the Emperor, in amazement, "more?" "Yes, sire," said she, "I now want something for the poor."

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FRIEDERICH FROEBEL.—THE KINDERGARTEN.

IN TWO PAPERS.—NO. ONE.

IDEAS are mighty latent forces that govern the thinking world. Every age has had its particular idea, which has been the stepping-stone to a greater one. The scholastic philosophy paved the way for the cosmic philosophy, in so much that the mistakes of Aristotle led Bacon to declare that more wisdom lies in nature than in books.

This idea of the equal or greater value of the real as compared with the ideal led not only to the discovery of new data in the realms of science and philosophy, but also to the foundation of new systems of education. Amos Comenius, with his picture-book for children, struck the first blow at the purely literary teaching inherited from the Middle Ages. He was followed by men of powerful intellect, like Rousseau and Basedow, who contended for the intuitive method, and declared that education is the complete development of the moral, mental, and physical powers of the child.

The first man who practically applied this idea of education was Pestalozzi, known to the world as "the father of object-teaching." But the only one who ever made it the foundation of a perfect educational system was Friederich Froebel.

He was born at Oberweissbach, in the Thuringian forest, on the 21st of April, 1782. His life from its earliest commencement was a sad one. When

he was but nine months old his mother died, leaving him solely to his father's guidance. This man was a stern, severe Christian, and pastor of a small parish. His duties compelled him to relegate the child to a servant's care, who in her turn left him as much as possible in charge of his older brothers and sisters. At four years of age he was given a new mother. For a time she seemed to love him; but when her own little children came, this love died down by degrees until it finally became only a kind of tolerance.

Nothing was more natural in this state of affairs than that he should fall back upon himself, and spend much of his time in analyzing his feelings and desires. This was not at all a bad thing for him, for introspection strengthens character by bringing in action all reserve force.

As he grew older he helped his father about the garden, and rendered himself useful to his step-mother by assisting her in many household tasks. Both these occupations developed his physique, and brought him in actual contact with the real labors of existence.

The strict observance of religion in his home, and the highly moral tone of all the literature that found its way there, began early to unfold a spiritual life in him; so that while still quite young he made the resolve to be always good and noble.

His early education was gained in the public school of the village, which in those days was connected with the church. It seems to have been the custom in these schools for one of the older children to dictate a sentence from the Bible to the younger ones. His description of this exercise will show what a vivid impression it made upon him: "I was brought to school," he says, "on a Monday. The appointed passage for the week was the well-known 'Seek first the kingdom of God.' I heard these words repeated every day in a quiet, earnest, somewhat sing-song, childish tone—now by one, now by the whole. The verse made an impression on me like nothing before or since. Indeed, this impression was so lively and deep that to-day every word lives freshly in my memory with the peculiar accent with which it was spoken; and yet, since that time nearly forty years have elapsed. "Perhaps the simple child's soul felt in these words the source and salvation of his life. Indeed, the conviction became to the struggling, striving man a source of inexhaustible courage, of always unimpaired joy and willingness in self-consecration. Enough to say, my entrance into this school was for me the birth of a higher spiritual life." *

Another lasting impression was made on him a little later by two hymns. One was, "Soar above my heart and soul"; the other, "It costeth much to be a Christ." In after years, when life brought him many heavy burdens, he was wont to repeat the words of both of them in order to gather strength and encouragement to continue his way.

His father's preaching was too stern and severe to benefit him; but his example wielded a mighty influence over his childish character. It was the custom in those days for people to go to their pastor with all sorts of family troubles and matrimonial differences; and he could not but mark the wisdom

* Translated by Lucy Wheelock.

and justice his father showed in dealing with all such annoying plague-spots of human existence. He saw the great amount of patience, tact, and love it took to make these grown-up children live in peace with one another; and although his father's charity made him truly respect *his* character, he could not but feel that there was something very wrong with mankind in general. "I felt deep grief and pain," he says, "that man alone among created things should pay the penalty of such a sexual difference that made it hard for him to do right."*

While still puzzling over this, his eldest brother, whom he loved very tenderly, came home. One day they were talking on the subject when his brother pointed out to him, by means of some hazel buds, a similar sexual difference in plants. Everything now became clear to him, and he turned to the study of nature with the eagerness of a lover. He felt as though the entire universe had opened to show him the wondrous power of God.

His brother was studying theology, and had taken up with some of the newer doctrines, which led him into frequent disputes with his father. Whenever Friederich was present during one of these arguments he could not quite make up his mind which one was right, and finally came to the conclusion that neither was entirely so, as the whole of a truth could not lie altogether on one side. This habit of looking at a subject from every point of view remained with him through his whole life.

The expression so often used in the church, "to put on Christ," "to show Christ in the life," troubled his childish mind exceedingly. Among the Christians with whom he came in contact there seemed to be a wide difference between profession and practice, and he feared the church required too much. Finally, however, after a long period of debate, he was solaced by this thought: "Human nature, in itself, does not make it impossible for man to live and represent again the life of Jesus in its purity: man *can* attain to the purity of the life of Jesus if he only finds the right way to it."†

During all this time, while his mind was developing from the bud of thought into the flower of wisdom, his body was working inversely, and getting him into no end of trouble. This was not because he took delight in evil-doing, but because he was neglected and misunderstood. His step-mother, in pouring all the love of her heart upon her own children, forgot the little motherless lad who had a just claim upon her affections, and termed his play "mischief," and his exuberance of spirits "badness." She further misrepresented thoughtless acts to his father, whose stern austerity forbade any appeal in his own behalf.

In this sad condition of affairs he turned to nature, and studied her as the monks of the old time studied their yellow parchments; she repaid him by keeping his heart a spring of love when it might have become a well of hatred.

When he was not quite eleven years old he was allowed to make his home with a maternal uncle, Superintendent Hoffman of Stradt-Ihn, a man who delighted in the spirit of the Gospel, and who ruled entirely by love. With him Friederich was truly happy. For the first time he was placed in a school

* Translated by Lucy Wheelock.

† Translated by Lucy Wheelock.

where he had companions of his own age—a fact which added materially to his enjoyment of life.

In this school the course of instruction consisted of reading, writing, arithmetic, religious teaching, and Latin. The first four studies he considered well taught; but the lack of all generalization in the teaching of Latin disgusted him. He says, though, quite naively, that the time given to it was not lost, as it taught him the utter folly of such a method of instruction. The study of mathematics was his chief delight, and his progress in it was marked and rapid.

When he had reached a suitable age his uncle prepared him for confirmation, and both the preparation and the rite exercised a powerful influence upon his inner nature.

Four years of peaceful and happy life he had spent in this home, where love ruled all things, when his father desired him to choose some calling. His step-mother would not allow him a student's course, as two of his brothers had taken it, and she thought her husband's revenues were not equal to any further demand.

At first it was decided to connect him with mercantile affairs—a project which failed because the revenue officer would not receive him. His own desire was to become a husbandman, but the stewards asked so much apprentice money that at first he was unsuccessful in getting a place. Finally, however, he was apprenticed to a man reputed very learned in geometry and taxing. This knowledge he may have had, but certain it is that, notwithstanding a previous agreement, he taught his apprentice nothing. Luckily Friederich was never daunted by untoward circumstances, and now, instead of wasting his leisure moments, he employed them in reading all the books he could find on geometry and forest matters, and in drawing a map of the district where he lived. He also became acquainted with a physician, who lent him botanical works; and nature, again, was his friend and companion.

When the term of his apprenticeship drew near a close, the forester suddenly awoke to the fact that he had not performed his duty toward him; and fearing he had learned nothing, determined to shield himself from the consequences. With such end in view, he sat down and wrote a letter to the boy's father, in which he termed him an idle, careless fellow, utterly incapable of learning or doing anything. This letter was sent by Friederich's father to a brother whom he was to visit on his way home. The charge in it was easily refuted by showing the amount of knowledge he had gained; and his story was believed by all but his step-mother, who sided with the forester.

This feeling on her part robbed his home-coming of all its joy, and made him well pleased when his father sent him, a short time after, to his brother, who was studying medicine at Jena. Jena was pleasant to Friederich; he liked the student life, and resolved to spend the rest of the term with his brother. This he did, giving his time to the study of local and topographical drawing. He also gained his father's consent to take a regular course there during the next term, provided he could raise funds enough to defray expenses. For this purpose he obtained the consent of his guardian to sell a small maternal property which would fall to him when he had reached his majority.

With a part of the proceeds of this sale he began student life. His studies consisted of practical mathematics, arithmetic, algebra, geometry, mineralogy, botany, natural history, physics, chemistry, the science of finance, the care of forest trees and forest affairs, architectural and common building, and surveying. The method of teaching was by lecture, and he became intensely annoyed at the arbitrariness of many of the instructors. Batsch, professor of botany, pleased him most. While attending these lectures he lived in the retired economy of a hermit; but fate seemed to be against him. His brother fell short of funds and asked him for a loan, thinking to speedily repay it. Thoughts, however, do not always become actions, as Friederich found to his sorrow, for the loan was not repaid when due; he consequently got into debt, and was imprisoned for nine weeks. His father and his guardian could both have assisted him, but refused to do it; and only by promising to renounce all further parental assistance was he finally set free.

After this experience he was again placed under a steward to learn practical husbandry. But his heart was always heavy now; and he could not get his mind free of thoughts relative to the misunderstanding between his father and himself. Constantly he watched for an opportunity to acquaint him with his inmost thoughts. Such an opportunity never came; his father died in the month of February, 1802, while he was still away from home. Died believing in his child's worthlessness, and commending him to the mercy of God. And yet this was of all his sons the one destined to win name and glory. Verily, parental sight is but short and narrow!

A little while after his father's death he became actuary of the Court forest, near Bamberg, and formed, while in that position, the acquaintance of a young tutor, for whom he soon experienced a deep friendship. This friendship proved the magic key which later opened to him the spiritual treasure-house of the world.

The friends were together but a year, when ambition sent Froebel in search of a higher employment. And although keeping up a regular correspondence, they did not meet again for two years, and then in Frankfort-on-the-Main.

In the mean time Froebel had come in possession of a small legacy through his uncle's death, and was giving his full attention to the study of architecture, with the intention of adopting it as a profession.

He still had philosophical thoughts, and the inner life of man was a subject that interested him profoundly. Indeed, his one wish in regard to architecture was that he might be able, through it, to cultivate and ennoble man. He had that rare love for his kind that made him always careful lest any chance error in his work should injure the least among them.

When his friend met him in Frankfort he was trying to get an architectural appointment. He was not in a very hopeful frame of mind concerning it, but had sent such testimonials as he possessed to an influential person, and was expecting something to accrue from his interest. In this state of affairs his friend sought to give him aid by introducing him to some prominent men; among them was Gruner, principal of the Frankfort Model School. With him

Froebel had a long and earnest conversation, during which he opened up every part of his mind for inspection. At the close of this talk Gruner told him to give up architecture and adopt teaching, and offered him then and there a position in the school. While thinking over this proposition news came that his testimonials had been lost. Nothing now remained for him but to accept it, and he was soon installed over a class of thirty boys. For the first time he felt what it was to be satisfied with a vocation, and blest his friend for having led him into the pastures of peace.

But every day's work made him more fully acquainted with the arduousness of an educator's task, and showed him how all but wholly unfit he was for his present position. This feeling prompted him to pay a visit to Pestalozzi, at Yverdun. He could spare but fourteen days, yet in that time he gained an insight into many things that had troubled him. Back to his school he went, determined as soon as he could spare time to take a full course of instruction under Pestalozzi. This he did in 1808, when he went to live at Yverdun, accompanied by three pupils. Previous to this, however, he had been fast developing into the perfect educator. He had lived in the closest communion with his pupils, sharing alike their labor and their recreation. In order to fit himself to fully understand them, he had dug down deep into his own nature, and had brought to the surface some of his childish motives for doing things. While joining in their play, he had noticed that by that means more than any other they sought to connect themselves with their elders. Life, then, is a unity; and what the child is in his play the man will be in his work; hence, the development of the individual from within, through his own efforts and in company with others of his kind, is the true education. Such was the general form of his thought before he went to Yverdun. His life there did him great good, and at the same time made him feel the need of higher culture. To obtain this he entered the University of Göttingen in July, 1811.

The chief thought now working on his mind was how to place mankind as a whole. This naturally led him back to man's first appearance on the earth, and thence to the first language spoken. The study of Hebrew and of Arabic began to entice him, and close beside them stood Indian, Persian, and Greek. While thus closely occupied with many studies, and dreaming of others to follow, he was fervidly happy. And the midnight stars that looked down on Göttingen saw often this earnest, patient face uplifted in mute questioning, as though he would wring from nature's bosom the secrets hidden there.

His funds at this time were so extremely limited that he had begun to think of literary work as a means of keeping himself in the university, when, by the death of an aunt, he came into possession of property enough to shield him from present want.

MRS. REGINA WILSON.

San Francisco.

A GENUINE EXAMINATION PAPER.

1. Is a knowledge of mental philosophy of any benefit to teachers? What?

No one who has taught can be absolutely ignorant of mental philosophy. For, though he had never studied this science from books, the operations of his own mind would naturally be observed when he came in contact with other minds. The farmer studies the character of the soil, the chemist carefully analyzes the ore, and the business man ponders over the probabilities of gain or loss; but the minds of children are more deserving of study than soil, or ore, or trade. They generally get less.

2. What is meant by mental faculties? Is there any fixed natural order of development?

The faculties, or powers of the mind, are divided by metaphysicians into three classes: the intellectual faculties, the affections, and the will; or, the phenomena of knowing, the phenomena of feeling, and the phenomena of willing. Those intellectual faculties which are first developed are first to decay; as, for instance, the faculty of perception, so keen in the child, is dull in the old man; and the reasoning faculty retained in extreme old age is far removed from infancy and childhood, and is developed slowly and painfully by average pupils in advanced grades. Between perception and reasoning lie memory, imagination, conception, judgment.

3. What distinction do you make between instruction and training?

A pupil is taught when he is told something and understands it, but he is trained when he can do something and do it well. Under teaching, the mind is receiving; under training, the mind is thinking, or the hand doing, or both may be acting. Teaching is thinking or doing for others, but training is getting others to do or to think for themselves. Walking a tight rope, or writing and delivering a grand oration, requires more training than teaching. The training of the mind and the training of the hand should be separated in no system of education. It has been well said, "That civilization is not healthy which divorces the training of the intellect from the labor of the hands."—If boys and girls would go to school a half-day and work the other half, the loss in one direction would be compensated by gain in another direction. The number of workers who earn a livelihood by their hands will always far outnumber those who can earn a livelihood by their heads. Then why should the training of the hand be so neglected in early life?

4. What do you understand by "unconscious tuition?" Upon what does its character or quality depend?

Perhaps my idea of "unconscious tuition" can best be illustrated. One gloomy, rainy day, at the noon recess, one of my pupils, a bright, precocious child about eleven, said to me, "Tell us something to play." I said, "Suppose we play school, and I will be your scholar." "And when I'm teacher may I do as you do?" This was a poser, but I said, "Yes." So school began, after the superintendent, writing teacher, and music teacher had been selected

in high glee. Soon after school had begun the superintendent came in, nodded to the teacher, took a chair, tipped it back, crossed his legs, stroked his beard, and quietly observed the state of affairs, taking out a small book after a while and making notes with perfect solemnity. The writing and music teachers were faithfully imitated, sometimes with cruel exactness. But the teacher of the school was simply abominable. I could hear the tones of my own voice, could recognize my peculiarities of position and movement. There stood my tormentor, doing just as I did, with an air of defiance, unpropitious and implacable, the tones of her voice having a peculiarly grating quality, an edge on every remark—offensive ones not being the exception; a caustic something in every utterance, and an air of expecting rebellion. All this tartness and irritability seems so unnecessary to an observer as to be positively amusing. So my pupils unconsciously taught me what I had unconsciously taught them—the weakness of my own character. Since then I have known myself to sit in one of the children's desks after school and wonder how I would like to be a child again and have a teacher just like myself. So far, it has never seemed an alluring prospect.

5. What is meant by habit? What of its importance in education?

Habit seems to be the power to do or to think well, without close attention and painful exercise of the will. When we act simply from habit, the automatic action follows the course of the habitual lines of thought, and expresses the whole of that previous training and discipline of the intellect which has been carried on under volitional direction. So our habits are our punishments or our rewards for what we have been in the past. Considering the difference in the habits of the children at home and in school, it is amazing that hundreds of children are brought together daily in our schools with so little friction. All come under the subduing and strengthening influence arising from the enforcement of good habits.

6. What is attention? What of its importance in education? How best secured?

Attention is holding the mind to one thing to the exclusion of everything else. Children should not be taught that attention goes only with interest. Adults can and must compel attention to what they are doing, and so can children in a lesser degree. All school-work cannot be made attractive, any more than dish-washing can be made fascinating. The power to control one's attention is the result of education. We are taught to control our attention by that grim, stern teacher—experience. We meet with accident or failure in work, and naturally say, There! *that* will teach me to mind what I am doing.

7. What is the teacher's part and what is the pupil's part in the work of education?

The best teacher is the one who induces pupils to work for the love of doing well and living faithfully, and the best pupil is the most humble and reverent one.

8. Name two principal objects of study. Which is more important?

The object of study is to enable one to form an intelligent judgment, and also to use the judgment of others. That nation is most pitiable whose few

men think for its masses, and that individual most unhappy who goes not outside his own narrow range of thought.

9. What principles should govern the teacher in assisting his pupils in the preparation of lessons?

This would depend on the character of the pupil and his ability. It is not a sign of a good worker to want much help. Energy and independence are associated, as well as weakness and dependence.

10. State your opinion of what a child of average ability should accomplish in the first year of its school life.

It should be able to read easy words of two syllables at sight, and should be able to write plainly with slate or lead pencil. It should be able to count to one hundred, and know all the combinations of numbers to one hundred. It should also have a small stock of small accomplishments, such as telling the time, the day of the week, month of the year, name of the President, Governor of the State, grade of its school, etc.—*Ohio Educational Monthly*.

COMPOUND NUMBERS IN OUR SCHOOLS.

IN TWO PAPERS.—NO. ONE.

NOT very many years ago, my first instruction in that part of arithmetic termed Compound Numbers was received in one of the public schools of this State. From what is now remembered, I think that my teachers made but little effort to give me a clear idea of the various weights and measures, although some of them were faithful and earnest in their work, and evidently strove to do the best they could for me. It is not my intention to complain of my old teachers in this article, but to complain of a system of teaching which they practiced, and which, if I mistake not, is still practiced in nearly all the schools.

When I studied compound numbers, I memorized the tables, and solved dozens of problems, some of them simple and some complicated; but of the quantities involved in these, I often knew but little more than the names. Instead of observing *things*, I was taught *names*. What practical knowledge of weights and measures I possessed was not obtained in the school-room. I knew what a pound is, for my brother frequently bought shot by the pound, and I had the opportunity of handling it. I understood what an inch, a foot, and a yard are, because I sometimes used a carpenter's square at home. A gallon and a quart were familiar to me, for I had seen molasses measured at the nearest grocery, and at home we often sold milk by measure.

My ideas about Square Measure and Cubic Measure were, for some time, very uncertain. A square foot I regarded as 144 things, and a cubic foot as 1728 things; but what these things are I did not learn at first. I cannot remember that any of my teachers ever made a vigorous effort to impress on

my mind the difference between the measure of surfaces and the measure of volumes; and I *can* remember that I was often obliged to refer to my tables, because I had forgotten whether 144 things or 1728 things make a cubic foot. I do not think I was a child of less than average intelligence; but it is certain that after ciphering through compound numbers in quite a large arithmetic, I still had only the vaguest of ideas concerning many of the quantities involved in the ciphering, although I could recite their names glibly, and was expert in solving problems.

I could not have guessed how much a grain of quinine is, and my scruples of medicine were like my scruples about whispering in school, for both were unknown quantities. That there were three different tables of weight, with three different names, I knew very well; but whether the pounds and ounces of the three tables were alike or not, I did not know, and, like many boys of my age, I did not care. My notions of Dry Measure and Liquid Measure were nearly the same, and I think I recited both tables many times before I could have readily told whether a bushel or a gallon is the larger. I might have told this correctly by referring to the tables, and by reasoning upon them; but boys do not like to reason on such things, and they ought not to do so. I had never seen a bushel measured, nor a bushel-measure. What I needed was not to reason upon the tables, but to see the two measures together, and to compare them.

I had a fair knowledge of time, but of the fluid ounces and drams used by druggists, I knew only the names; and the degrees and minutes of circular measure were to me, for many months if not years, merely figures with little circles and points at the right.

I have tried not to exaggerate my ignorance during this period of my school-life, and I do not think I have done so. From conversation with others, I learn that my experience in the schools is like theirs, and I can see that it is the experience of hundreds of children who are in the schools to-day.

The things which I learned at school about weights and measures were their names and numbers, and the children of to-day are, with few exceptions, still learning these and nothing more.

What they know of weights and weighing, or of measures and measuring, they learn outside the school—on the farm, or in the store or the shop.

If the scholar has no good opportunity to gain this practical knowledge at home, he leaves the average school with a great jumble of names and numbers, but with a very imperfect conception of the things which the names represent.

It is evident that this fault in our teaching should be remedied, and I think the remedy to be chosen is obvious. We must bring the weights and measures into the school-room. More or less of this has been done by our best teachers in the best schools, but it is not of these I write. Every school-room in which compound numbers are taught, should contain full sets of weights and measures just as they are used in actual business; and these should be furnished, not by the teacher, but by the school district as a part of the necessary apparatus of the school-room.

Our weights and measures are very complicated on account of the varying scales, and the different kinds used in weighing and measuring different articles. The metric system is more simple, but it will never be in general use till it is enforced by a compulsory law. We have all learned to think in feet and inches, and the average citizen is averse to learning to think in different units of length, for the sake of establishing a more convenient system, and enabling posterity to think in meters and decimeters. We prefer a slow horse that we have learned to manage to a fast one that we know but little of, and which may run away with us when we least expect him to. It is true that the fast horse may make a fine animal for our children's use, if we train him, or rather train ourselves and them to ride him; but we are really somewhat selfish, and are disposed to say that, as we have got on very well with the slow horse, our children may do the same. We don't like to make sacrifices.

Our present weights and measures are likely to be in use for many years, so it is necessary to make the best of a cumbersome system, and to do what we can toward giving every child in our schools a practical knowledge of their nature and use. For several years I have thought that every school-room should contain weights and measures, and as I have had an opportunity during the present year to use them in school-work, I can testify to the practical advantages that arise. There seem to be no sets of weights and measures in the market that are prepared especially for school use; so, for the benefit of trustees who may wish to order such supplies for their schools, and to aid the inexperienced teacher, who may find some trouble in devising suitable exercises on the various tables, I here give a list of the articles needed, and some of the work which may be done in connection with them. This work is probably not the best that can be done, and it is not presented as a model, but merely to illustrate what I consider a more practical method of teaching than that usually followed.

WEIGHTS.

Apparatus.—A pair of standard gold-scales. A set of Troy Weights—pound, ounce, pennyweight, and grain, with fractions of the ounce, and multiples of the grain.

A set of Apothecaries' Weights—pound, ounce, drams, scruples, and grains.

A set of Avoirdupois Weights—pound, ounce, and fractions of pound.

Exercises.—First. After the scholars have learned the names of the different weights, let them compare by means of the scales the ounces and pounds of the three tables.

It is not really necessary to have separate pounds and ounces of Apothecaries' Weight, as they are identical with the corresponding Troy Weights; but it is well to have the weights duplicated and labeled differently, as children will find less to puzzle them if all the denominations of each table are first presented and then compared.

Second. A quantity of dry sand or other loose material should be furnished, and each scholar should be required to weigh, tie into a parcel, and label a definite amount, which should be re-weighed by another scholar in order to

test the accuracy of the work. The teacher should fix the amount for each parcel, and the work should be in the small weights of the Troy and the Apothecaries' tables.

Third. A number of small articles, such as rings, marbles, nails, crayons, etc., should be weighed by each scholar, and a list of their names and respective weights should be carefully written.

Fourth. The tables should be thoroughly memorized, and the teacher should see that the scholars can understand and correctly answer questions like the following:

1. Which is heavier, a Troy pound or an Apothecaries' pound? a Troy pound or an Avoirdupois pound? an Apothecaries' pound or an Avoirdupois pound?

2. Which is heavier, a Troy ounce or an Apothecaries' ounce? a Troy ounce or an Avoirdupois ounce?

3. How many grains does each of the ounces and pounds of the three tables weigh?

4. Why is the Troy ounce heavier than the Avoirdupois ounce, while the Troy pound is lighter than the Avoirdupois pound?

5. Which is heavier, a pennyweight or a scruple?

GEORGE A. RICHARDSON.

Garden Valley, El Dorado Co.

ROMER, KING OF NORWAY.

A TRAGEDY IN FIVE ACTS.

ACT III.

A hall in which a number of Norwegian Noblemen and Bishops are assembled. Arvicka, one of the Noblemen, presiding.

Arvicka (rising.) We're gathered here upon affairs so grave,

That all the heart of Norway now does throb

In their regard. A matter 'tis to make
The spirits of your fathers in their graves
Wake from their gloomy sleep, to come again
In creaking armor, and with rusty swords,
To teach their sons to rise 'gainst tyranny.
Th' unworthy head of Norway,
Forgetting law would make his people
slaves;

I am a slave, and you:—we all are slaves;
I speak it calmly, do you hear my words?
Slaves, Norwegians! Slaves! Ha! Is't an
honor

That you do meekly listen to the sound?

Is all the fire that burned your fathers' hearts

Wrapt with them in their shrouds? If this be so,

Better our country sank beneath the ocean;
Better the storms did roar above our heads,
And the white billows, white as sepulchres—
But I forget, the age has passed beyond me,

And I am stranded on a shoal of time,
Where men had rather die than serve a tyrant.

2nd Noblemen. The burden's on us, and we groan beneath it,

But quickly will we cast that burden down
When some bold leader rises up to guide us.

1st Bishop. And if we have no leader, then will we

Rush all together 'gainst our tyrant king,

And in the shock receive our death or freedom.

Arvicka. Ha! I have wronged you,
For now I see that those poor words I speak

Have waked the sleeping tiger in each breast,

And every noble eye now fiercely gleams
With lightning that does go before the storm.

So had these thoughts stirred up your fathers' breasts

Till they, with clenched hands had torn the heart

From him who robbed them of their liberty.

My heart grows warm to look upon you now,

While such men live, all tyranny must die.

3rd Nobleman. Show us the way that freedom may be found,

And we will seek were't through the halls of death.

2nd Nobleman. Strong is the reason that urges me on

To rise up in rebellion 'gainst the king;

I had an aged father that this tyrant

Did load with chains, and cast into a dungeon,

Where all was dark and gloomy as the night;

Where never a ray of sun did lose itself,

But all was chilly, dark, and desolate;

And here his chains did hold him many a year,

Waiting in patience till his end might come.

The end did come, for when one winter night

The midnight hours on tiptoe hurried by,

I stood beside him while he fell asleep

To sleep that sleep that freed him from his chains.

Soon then the sun did break night's barrier down,

And all his flood of light came flowing in
That showed his poor dead face that had a smile upon it,

A sweet sad smile, a very pretty smile,

Like sunlight, and his face a summer's morn;

A smile that seemed to laugh at tyranny.

3rd Nobleman. I had a son that carried all my hope;

A son that I had watched through many a year,

As he grew up from childhood's years to youth,

From youth to manhood; and then at that time,

When all the greater dangers of his life

Had been passed by, the king did hew him down,

And left his body in the sun to rot

Where dogs might feed upon it.

Arvicka. A record this to make the king of darkness

Grow pale with envy; do you hear, my lords,

The noble record of your noble king?

Methinks that now you do not need a drum
To stir your spirits.

1st Bishop. And we would add grave charges to these charges;

As you condemn him in his earthly world,
So we condemn him in the world to come.

There shall he burn in fire unquenchable;

Where he shall yearn for but a drop of water which angels shall deny him. For he has robbed the church of all those lands which heaven has provided for her.

2nd Bishop. Is this a king to sit on Norway's throne A king who robs the holy mother church of all her lands? A king who scorns the cross?

Heaven's curse will be upon the land he governs.

Arvicka. These charges, did they bear far lesser weight,

Would paint him for so black a hearted villain,

That were he cast from off some jutting rock

Headlong into the frothing surf below,

Or carried down into the roaring maelstrom,
The punishment would be by far too light.

2nd Nobleman. If, at some time when Denmark sends his ships,

Loaded with warriors, that against our king
Are sent to battle, we joined with Ehrensward,

The foreign foe would then become our aid,
And then might we rise up against our King.

3rd Nobleman. 'Tis said that thousands flock to Ehrensward,

And in the mountains join his wandering bands.

But in those mountains he is barriered now;
For all the warriors that the King can spare

From those he sends to battle with this
Denmark

He sends 'gainst him. But, knowing every
stronghold,

Deep in the mountains Ehrensvard does
hide,

And in the night-time steals upon his foe ;
Or comes upon them when they're off their
guard,

Then swiftly leads his men back to their
stronghold.

2nd Nobleman. 'Tis rumored now the
Danes prepare a fleet

To send against us.

Arvicka. Then let us dethrone
This tyrant King. And then will we o'er-
come

With ease this Denmark, and will send his
fleet

To find the bottom of the Baltic Sea.

But if the deed is done, there's no to-mor-
row

Must wait its doing. Now the time is hot ;
The people now do hate the King that rules
them,

And now does hostile Denmark come
against us.

'Tis in the rush and whirlwind of the time
That noble deeds are done ; so let this deed
Be now done.

1st Bishop. But is Ehrensvard now
ready ?

Arvicka. He only waits for us to join
him.

2nd Bishop. Have you then heard from
him ?

Arvicka. Last night he came to me.

3rd Nobleman. Ev'n like a spirit from
the world of death,

He's everywhere ; and I have heard it said
That once he went disguised before the
King.

Arvicka. If he had but been born to be
a monarch,

He'd make the world his kingdom.

1st Bishop. Let him then
Become a monarch, and rule over Norway.

Arvicka. Stout hearts must let him, and
sharp blades of steel

They that would let him must have on their
side.

The hours of midnight, when the hazy moon
Looks sadly down upon the quiet world ;

When sleep does hold the world in chains
of silence,

Then they that would let him

Must slip out 'neath the mantle of the night,
And steal on towards the palace of the
King,

And one must reach the bedroom of the
King.

If it proves that one cannot reach the
room,

Then all must strive, though o'er a bloody
path,

To reach it.

3rd Bishop. The palace, though, is
strongly guarded.

Arvicka. There are a thousand ways to
make a strong guard weak.

All here are friends to me, and friends to
Norway ;

I fear not then to give this secret to you :
That Ehrensvard will be this night with us
To share the deed.

2nd Bishop. Is it not, though, too soon ?

Arvicka. My lord, if 'tis too soon,
There'll be no time when 'twilf be late
enough.

To-night at twelve,
When does the bell up in the palace tower
Toll with its mournful note the hour of mid-
night,

Let every man come armed into the grove,
That's to the eastward of the palace
wall.

Then, when the sentinels on the wall are
changed,

We'll make our entrance through the east-
ern gate.

[Enter a messenger.]

Messen. My lords, the King does send
his greeting to you,

And says that he is coming to preside
Here at your meeting.

[Exit messenger.]

1st Bishop. Then we all are lost.

2nd Bishop. O, why was I enticed to
tun against him ?

Woe was the day when 'gainst the Lord's
anointed,

I turned this face of mine.

3rd Bishop. I too have erred,
But all the while my heart did rightly beat,
The flesh alone was weak.

4th Nobleman. We're all lost men.

Arvicka. What, can a moment change
your natures so ?

Methought three valiant bishops were here
with me,

Whose indignation burned against their ruler!

Truly the flesh is weak—the flesh turns traitor—

It matters not,

For soon the King will cast the traitors' flesh

In some dark dungeon: or perchance the head

Will by an ax be severed from the flesh.

4th Nobleman. And do you think the King does know already

Why we have met?

Arvicka. Surely he does,

And I doubt not that in his punishment He'll be severely turned tiger-like.

Our only hope is now to stand together,

And when he enters pierce him to the heart.

'Tis no time now to act the woman's part,

Our hope, our life, depends upon our action.

2nd Bishop. But if we fail?

Arvicka. The failure will be glorious; for then the sound of this glorious deed shall be borne by the billows of the ocean of time and cast up on the shores of eternity.

Prepare then now to act a noble part

Or die a noble death.

(A trumpet sounds in the distance.)

1st Bishop. The king approaches! Oh! our fate is sealed.

4th Nobleman. Our only hope is now to kneel before him,

And pray of him a pardon for our treason.

2nd Nobleman. Our only hope.

Arvicka. You too, my lord! O heaven! My heart grows sick. Are these my countrymen?

God help my country!

Are these the men whose eyes did seem to blaze

With fire that flashed as from the tiger's eye, Whose sinews strained at but the thought of danger?

Methinks that if your fathers now are 'round you,

Their pale eyes weep to look upon their sons.

Is there not here one patriotic hand

Will lift a dagger 'gainst the tyrant's bosom?

What, never an answer? Truly, then you're doomed.

(Trumpet sounds near.)

2nd Bishop. Our fate will soon be known.

Arvicka. Our only hope is in his death. Once more I ask are there none here to aid me?

What none?

Then will I leave you to await your doom—

1st Bishop. Come, let us go to meet him, And throw ourselves before him.

Arvicka (springs to the door and draws his sword). Make but th' attempt, and I will cut your bodies.

Into a thousand parts.

Oh, that my countrymen should be so base!

(The door is forced open by soldiers from without. Arvicka is seized after much resistance; and the others submit without resistance. The King takes his seat in the chair of state.)

King. My noble Lords, continue with the business;

Cast out the music of your eloquence

In golden notes to tremble on the air;

Now imitate the dead Demosthenes,

And make dead Cicero to shake his bones In ghostly envy. Where are your tongues, my lords?

Are they then in the grave with Cicero?

Why have you met together? Ha! Bishops here?

Surely some deed of heavenly character;

A heavenly light does fill your holy eyes— Why are you here?

1st Bishop. We do not know, my lord.

King. You're right, my lord; for man does nothing know;

We're built of dust and our thoughts are dust, and the dust knows nothing. Our thoughts are built from what we see around us, and that is dust. The heaven man dreams of—'tis earth and dust; vile, rolling earth.

Hark you! what shall we call the man—

You know what I would say—

1st Bishop. My lord, a poor, poor wretch who grievously has erred.

King. Who grievously has erred. 'Is he a villain?

1st Bishop. My lord, I fear it.

King (to Arvicka). And you, my lord?

Arvicka. And if you were that king,

That man would be a noble patriot,

Who saw no danger in a tyrant's frown,

But only saw his country drifting on

To crash upon the rock-bound shore of ruin;

Who heard alone the cries of agony;

A million voices mingled with the storm

That drove his country onward to destruction.

King. And is your hate against me then so strong?

Arvicka. My lord, I hate you not. If I did hate you,

I were unworthy then to do this deed.

King. And for th' attempt to do this noble deed

You now shall die, and sleep down in the ground,

Your jaws shall gape and grin a ghastly grin,

Your eyes shall stare as they did ne'er before, And then we'll have a stone above your head

For crows to light upon.

Arvicka. I fear not death;

'Tis but a step from daylight to the dark;

'Tis but a night that comes before the time;

Then like a man I dare to face that night;

The world is change; the universe is change;

Then when my sun sinks down into the night Must I too change.

King. Bring in the Headsman's ax,
(Exit a Soldier.)

We'll give the worms a banquet.

My holy Bishops, soon th' unholy earth

Will fade away before your holy eyes,

And the great Death will ope his ebony gates,

And lead you through into his midnight kingdom:

And when you pass into this mighty kingdom

Where all is ruin, and where all is black,

Then will you learn if two and two are four—

There's naught that can be known till after death.

My lord, I envy you, for you will learn

Sacramento, Cal.

What man can never know. What is't to live,

To sleep, to eat, to walk upon the street; Why rats, why vermin, do they not the same?—

To bow, to grin, to gape at one another, And then some pestilence Does blow away the little flame of life— To die and sleep the dark and gloomy sleep,

And then?

2nd Bishop. My lord, we cast ourselves before you here—

King. What, do you fear to die? You who so oft

Have thundered 'gainst the flesh—

This wretched flesh, evil and abominable— Prepare yourselves to die.

(Enter a Soldier with an ax.)

[The King takes it and feels the edge.]

That this should have the power to make an end

Of all that's mortal in this being, man—

My lord, Arvicka, you are now released.

Arvicka. What, now released!

King. I said released, but if you rise again

In arms against me, then your life shall end.

Beware, I say—beware then my revenge.

Now chain these coward Bishops hand to hand,

And till our further orders cast them in a dungeon.

[Enter a messenger hurriedly.]

Messen. My lord! The Danes give battle to the army

That headed was by the aged Welhaven, And they defeated him and took him prisoner.

ADAIR WELCKER.

END OF ACT III.

As pure and fresh country air gives vigor to the system, so do pure and fresh thoughts tend to invigorate the mind.

EVERY great example of punishment has in it some justice: the suffering individual is compensated by the public good.

If you can count the sunny and cloudy days of the whole year, you will find that the sunshine predominates.

POPULAR SINGING.—I.

MORE than 2,000 years ago, Plato, the propounder of a system of ethics second only to Christianity, said of music : "To look upon music as a mere amusement cannot be justified. Music which has no other aim can neither be considered of value nor viewed with reverence." And these words are re-echoed in our day by England's great philanthropist and statesman, W. E. Gladstone, when he said : "They who think music ranks among the trifles of existence are in gross error, because, from the beginning of the world down to the present time, it has been one of the most forcible instruments both for training, for arousing, and for governing the mind and the spirit of man. There was a time when letters and civilization had but begun to dawn upon the world. In that day music was not unknown. On the contrary, it was so far from being a mere servant and handmaid of common and light amusement, that the great and noble art of poetry was essentially wedded to that of music, so that there was no poet who was not a musician ; there was no verse spoken in the early ages of the world but that music was adopted as its vehicle, showing thereby the universal consciousness that in that way the straightest and most effectual road would be found to the heart and affections of man."

The world is full of music ; Byron truly says :

"There's music in the sighing of a reed ;
There's music in the gushing of a rill ;
There's music in *all* things, if men had ears ;
Their earth is but an echo of the spheres."

Even the rugged heart of Carlyle opened to the divine influence of music, for he said, "Music is well said to be the speech of angels" ; and again, "See deep enough, and you see musically ; the heart of Nature being everywhere music, if you can only reach it."

And how often have Congreve's words been quoted as showing its power:

"Music hath charms to soothe a savage breast,
To soften rocks, or bend a knotted oak ;
I've read that things inanimate have moved,
And, as with living souls, have been informed,
By magic numbers and persuasive sound."

George Eliot spoke truly that, "There is no feeling, perhaps, except the extremes of fear and grief, that does not find relief in music—that does not make a man sing or play the better."

The noble mind of J. G. Holland saw that "music was a thing of the soul—a rose-lipped shell that murmured of the eternal sea—a strange bird singing the songs of another shore" ; and all the poets and men of letters, from dear old Chaucer to the lamented Longfellow, recognize the fact that "music is the universal language of mankind."

There can be no doubt that music has a great influence in imparting

those delicious sensations which tend to sweeten and prolong life. That this fact is fully recognized is testified by the immense number of firms who devote themselves entirely to the manufacture and sale of musical instruments.

It is, however, acknowledged throughout the world, that the human voice has no equal for the production of sweet, striking, elevating, and enchanting sounds, that delight the ear and give tone and coloring to the words of the poet. Hence, of all kinds of music, vocal music should claim the especial attention of all earnest and progressive educators. Singing is known to improve the enunciation, refine the taste, elevate the morals, confirm the health, strengthen the social feeling, and add considerably to the pleasure of those who produce and those who hear it.

The consideration of health is a most important one, and one to which too much attention cannot be given. Singing is an unconscious help: indirectly, by giving a flow of spirits, and chasing away weariness and despondency; and directly it promotes health by the exercise which it gives to the lungs and the vital organs. We cannot sing without an increased action of the lungs, and this causes the heart and all the organs of digestion and nutrition, to work with renewed vigor. The singer brings a greater quantity of air in contact with the blood, and hence the blood is better purified and vitalized. Healthful and highly oxygenized blood gives energy to the brain, and thus the mind as well as the body shares the benefit of the exercise.

There is great joy in listening to music, but as Marx well expresses it: "That which I hear enters into my existence from without, awakens and enriches my mind; but that which I sing is the effluence of my own life, the exertion of my own power to refresh and elevate myself as well as others." Hence all should learn to sing, and children should be taught from their earliest years to sing properly and sweetly. There are parents who imagine that their children have not the power of song. To these I say, in the emphatic words of my father—a teacher of thousands of children and adults—"Most adults and *all* children can learn to sing." Of course there are isolated cases where this statement will not apply; but such cases are few and far between. The same organs that are used in speech are used in song, and in almost precisely the same manner. Hence it is obvious that all children who can be taught to talk can likewise be taught to sing. The extent of the ability attained, as a natural consequence, is dependent upon the application of the pupil and the methods of teaching used.

And yet singing is almost pre-eminent in its universality, because it is independent of culture. "The most ignorant bow to its all-embracing sway, and thousands to whom form and color, science and literature, speak a strange tongue wake to the familiar accents of the universal language. Their love of it wants no nurture; it is ready to hand. More than this, we cannot prevent their singing, do what we will; and they are likely to feed their lower feelings with music if we as teachers and educators do not help them feed their higher."

Besides this, another plea for popular instruction in singing is the importance of teaching people harmlessly and improvingly to fill up their leisure

time. Thus art becomes a part, and a very important part, of the education of the people. The influence of mothers must be aided by the technical knowledge of the school-master. In order, therefore, that music may become a true and lasting joy in the homes of the people, it must be taught in our schools. And those teachers who have introduced music know well that, when the minds of their pupils are sluggish and their bodies weary, a good hearty song will have quite an invigorating and stimulating effect. It matters not in which room ; in the high school or the earliest primary, the effect is the same. For some years I have taught singing in public schools as a relaxation from my ministerial and other labors, and it has been a pleasure to note the delight of the scholars at my arrival. Books are as rapidly as possible put in place, and impatience to sing is clearly manifested if I am a few minutes before time. And I have noticed the fact that parents evince far more interest in the school where singing is a feature than where it is merely introduced at the caprice of the teacher.

The signs of the times throughout the world show clearly that the popular demand will soon be for thorough and competent music-training in public schools. In France, England, Holland, Belgium, Germany, and other European countries, singing is a most important branch of a public school education. The municipality of Paris has for years established free musical classes, to teach which the most accomplished and skilled teachers are employed. In England, singing is taught in almost every school, whether public or private. The movement is spreading rapidly in America, and ere long the teacher will be required to look upon singing as secondary only in importance to the "Three R's."

My next article will be devoted to a consideration of the advantages of teaching singing by note compared with singing by ear, and how the former desideratum is to be obtained.

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ON THE VALUE OF THE STUDY OF MATHEMATICS.

MATHEMATICS (Latin, *mathematica*) is so related to mental processes that any proper consideration of it must have incidental reference to the intellect. There are but two great ideas to be comprehended by the teacher: (1) the mind to be educated; and (2) the knowledge to be imparted. The teacher must know both, and the measure of his knowledge is also the measure of his success. *Method* is the scientific adjustment of the latter to the former. According to this suggestion there is, (1) the intellect, endowed with certain faculties susceptible of improvement practically unlimited.

It will be sufficient for present purposes to define faculties or powers of the mind as *the various capacities of intellectual actions* with which we are possessed. These are distinguished as *physical* and *moral*. The latter are those whose action renders us deserving of praise or blame. The former are those

whose presence is no cause of praise, and whose absence is no cause of blame. No attempt is here made to secure the accuracy of technical definition, but merely such degree of exactness as this subject demands. The cultivation of the physical faculties is the immediate object of school instruction. The memory must be cultivated to retain the principles and data with which the reasoning faculty is to operate. The power of analysis must be cultivated in order to present us with the several parts of those systems, and the several steps of evidence toward the demonstration of the truth with which we wish to become conversant.

Rules must exist whereby these faculties are to be exercised, and they must be actually trained according to these rules, as the ancient gymnastic masters did their athlete pupils. With them every muscle was to be trained by due attention to the exercises that would call it into action. The result was a symmetrical body. The analogue of this system obtains in regard to the intellect. To develop its powers so that each may possess the greatest energy, we must train each in pursuits adapted to secure this end. To cultivate the taste, a different method is required than to cultivate the memory. To cultivate the faculty of analysis and arrangement, we must choose a different sphere of exercise from the one we select when kindling the imagination. The painter who desires to improve his skill in colors does not study anatomy; the architect who would model a temple does not prepare himself by studying botany; the statesman about to pen a law for the prosperity of his country does not begin by sketching the ruins of Baalbec, or of the Minerva Parthenon;—but each one directs himself to that course of preparation fitted to perfect him for his particular pursuit. The painter and the architect apply to the masters in their arts, and the legislator studies the wants his law is to supply.

Similarly with studies. The faculty principally exercised in the linguistic studies is the memory. An arbitrary representation of things is to be acquired, which demands diligent and laborious application; and though other powers of the mind are employed, the one principally cultivated is memory. To refine the taste, the student is employed in the study of rhetoric, oratory, poetry, and should be directed to those elegant branches comprehended under the generic term “æsthetics.” The faculties exercised in the study of metaphysics are the attention, power of analysis, and judgment. The process which terminates in the precept “know thyself” here has its place. The faculties exercised in the study of mathematics are the power of analysis and reasoning. The term “analysis” denotes that power of intellect which separates the combinations submitted to us, and arranges the parts according to some given law. The term “reasoning” denotes that intellectual process which connects principles that are intuitive, granted, or certainly known, with truths that are not intuitive.

The question then recurs, How are these two powers cultured by the study of mathematics? Is the study of this science adapted to strengthen them, to call them into full operation, to discipline them to exercise their functions with accuracy and vigor, and to train them to act with energy? These questions must be answered in the affirmative, for the following reasons:

1. The first principles of mathematics are exceedingly simple. All sciences have certain axioms or first principles upon which they are built. The term "first principles" denotes those truths that are intuitively evident, taken as granted for the basis upon which the science rests. For example, the axioms in mental science are such as, man thinks, reasons, remembers; the intellect he exercises to-day is identical with the intellect he exercised yesterday, or a year ago, etc. Beginning with these and similarly evident principles, the metaphysician proceeds till he arrives at an analysis and knowledge of the intellect. There are also first principles in law, physics, theology, and in mathematics. The mathematician has the advantage that in his science the first principles are considered more simple than in any other. When one is gravely informed that a part of a line is not equal to the whole line, or that when two magnitudes are equal to a third magnitude they are equal to each other, a smile may be provoked by the simplicity of such an enunciation. Yet upon such simple truths is built the entire structure of mathematical science. Guided by these, as the mariner by his pole star, the mathematician launches forth upon the vast ocean of the material universe, and soon he has at command a science that enables him to analyze alike the irised tints of light, the sweet tones of the lute, and the whole solar system, with its planets, orbits, and varied motions. Having ascertained his first principles, the next step is to apply them to some proposed objects and series of truths; and here,

2. The reasoning in mathematics is always certain and rigidly accurate. A theorem is proposed, the truth of which must be demonstrated. To effect this, the mathematician must point out the several links that connect the proposed theorem with the mathematical first principles. He must show that it rests upon some granted or intuitive truths. When he has performed this, his demonstration is complete; the proof required is furnished, and the process is terminated. What faculties of the mind are employed in such an operation? Examine. Suppose the proposed theorem involve plane geometry. The first principles of the science and geometrical truths already proven lie scattered about us. The first step is to choose such of them as are suitable to prove the point. This gives employment to analysis. From a number of different truths we are to choose those subservient to our purpose. They must then be arranged as to form a continued chain, beginning with a truth that is certainly known, and ascending by a connected series of links to the truth of whose certainty we wish to be convinced. To point out this regular series of links, and thereby exhibit the connection of the known truths with that truth which was not known, gives full scope to the reasoning faculty. This is reasoning—reason in action. Let, then, this intellectual process be repeated with regard to another proposed point or theorem, then with another, and still another; while the mind, continually taking the truths demonstrated as principles from which to demonstrate others, goes on and on in its examination of the manifold truths, respecting form and magnitude, until it ascends and grasps and connects the multitudinous parts and relations of the whole material universe with the intuitive first principle, that the part of a line is less than the whole of the line. This is the severe discipline the faculties of

analysis and reasoning are made to undergo in the acquisition of the science of mathematics. Every latent energy is called forth. A habit of correct reasoning is formed, and the mind is educated to reject all extraneous matters and select only such truths and principles as form a regular chain to connect what we wish to demonstrate with what we already certainly know. By this training,

3. The reasoning faculty is formed to a habit of accuracy. Thus is mathematics better adapted to aid and improve the reasoning faculty than any other system of logic ever devised. Mathematics gives us reason in exercise. The Whateleys give us technical lessons. The latter bring before us a dead skeleton; the former, a living, active, and aggressive gladiator. The one gives us the inanimate statue instead of the living, glowing beauty—a dead Milo instead of a living Hercules. In mathematical demonstration every part is to be well ordered, and it is indispensable that the mind take an accurate view of every step toward the proof, lest the whole process be vitiated—rendered useless—and its results inapplicable; lest we arrive at a result entirely different from what we had proposed.

4. Another advantage the reasoning faculty receives from the study of mathematics is the habit of fixing in the mind clear and definite views of the points to be proved. How many there are who, neglecting to do this, are unable to reason with any closeness whatever, wander from the point, make neither poetry nor demonstration, speak neither to the head nor to the heart, but become entangled in a “boggy *syrts* that is neither sea nor good dry land.” The science of mathematics will form the mind of the student to a habit that will not permit him to fall into such errors. He then learns a different lesson, whether in measuring the rainbow, the chords of the lute, or tracing in the globule of water the same laws that govern the solar system. The lesson is to fix a clear view of the object of his pursuit; and having taken that as his guiding star, to go, like the storied Hollander with steel joints, steadily onward, losing himself not in clouds or flowery fields, among imaginary friends, or in devious by-ways.

5. By the study of mathematics is formed the habit of inspecting each link in the chain of reasoning. The utility of this habit is, that by it we are enabled to retrace the steps we have taken—to re-examine the process over which we have gone, and point others the way. It frequently occurs that a mind able to form a correct judgment relative to any proposed point will nevertheless be entirely unable to retrace the steps by which it arrives at its conclusion. The process of reasoning seems to glide like an Arethusian stream, altogether imperceptible to the reasoner himself. Napoleon, brought to an eminence whence his eye could fall on half a million soldiers drawn in battle array, would at once comprehend the whole arrangement—see all the possible combinations of ten thousand masses of armed soldiery. The intellectual process in such a case seems to run with the rapidity of lightning, and often, like the lightning, it leaves no trace to tell how it has gone. With like quickness and incomprehensibility, the reasoning power flies through many intellects, powerful by nature, and vigorous by exercise. This idea may be

illustrated by reference to Russell's account of Cromwell. He observes: "That great statesman, when a member of Parliament, often rose to address the house; but his speeches were tedious, obscure, confused, and often unintelligible, yet his actions were as prompt, decisive, and judicious as his speeches were wavering, prolix, and inconclusive. Nor were his written compositions much superior to his speeches, the great deficit of both consisting not in want of expression, but in the seeming want of ideas." Here is a perfect picture of a vigorous mind, whose reasoning process was imperceptible to itself. The same idea was conveyed in the judicious remark of Lord Mansfield to one of his friends who was appointed governor of Ireland, and who was a man of sound judgment, but not habited to express his reasoning. "When a matter comes before you," said Lord Mansfield, "give your judgment, but refrain from giving your reasons for it. The judgment will in all probability be correct; the reasons for it will infallibly be wrong." These illustrations explain what is often found in practical life, that the man of soundest judgment and most original thinker is often the most false and incoherent reasoner. This results from his entire inability to detect the several steps by which he arrived at the conclusion. Yet the ability to inspect each link in the chain, and assign the true reasons for conclusions, is the qualification most needed in the pulpit, at the bar, in the legislative hall, and in every art and science. Mathematics better than any other science disciplines and trains the mind in this habit.

6. Another advantage in the study of mathematics is, that we are taught to know when our demonstration is complete and the process terminated. Goldsmith describes a character that even when vanquished could argue still. He might have found some individuals of his day, as there are not a few in our own, who, when they have finished their argument relative to any proposed matter, can argue still. Who, not aware that they have arrived at the conclusion and finished the process of reasoning, struggle on, piling Ossa upon Pelion, and Pelion upon Ossa, as if the battlement they wished to gain showed itself still higher before them. They lose sight of the goal; and the mark at which they originally aimed, like the capricious *ignis fatuus*, allures them away through bog and brake, over hill and dale, till finally they and their argument are all lost in obscurity. With some propriety may such a reasoner, after such a chase, call classic tongue to his aid and cry out, "*hoc opus hic labor est.*" Yet every science, profession, and by-path of life has many such reasoners. How much of curious learning, acrimonious polemics, care, labor, breath, ink, and paper might have been saved; how many columbines and roses of oratory might never have been heard or seen—had proper allegiance been rendered to the homely apothegm, "quit when you are done," which the rigor, accuracy, and unity of the science of mathematics teaches its disciples to do! Consistent with the foregoing suggestions, the methods of teaching mathematics must be of such character as will secure absolutely clear perceptions and conceptions of mathematical truths and their relations; secondarily, these methods must be of such nature as will secure facility and accuracy of performing mathematical processes and elegance of expression in communication

of results. The pupil must comprehend the logic of which his work is the expression, and the teacher must not be an obstacle. This is of importance to pupils, while the ability to "work" hard questions is of questionable value. The man who is known as a mathematical genius is a species of monstrosity—a form of mechanical power—sometimes connected with the "wheel and axle," for whom there is no use. The object of mathematical study is to develop men with cultured minds, and not to produce adding-machines.

HAMILTON WALLACE.

Superintendent of Schools, Salinas City.

EDITORIAL DEPARTMENT.

THE JOURNAL AND THE STATE DESIGNATION.

THE JOURNAL has been liberally advertised during the past three weeks. The daily and weekly papers have thoroughly informed our readers that a contest of some kind is in progress before the State Board of Education.

The result of this contest is claimed as still undetermined. We write in the contrary belief, however. But let the final outcome be what it may, it will surely redound to the advantage of this periodical.

The facts are these: On the 17th of March, the State Board of Education met at the Capital. Its chief business was the designation of an official organ for the Department of Public Instruction. The editor of the JOURNAL personally appeared before the Board. The surprising fact soon developed itself that this State is well supplied with educational journals. Though naturally observant of important events in the educational world, we were quite unprepared to meet with a "California Educational Record," and a new "California Teacher." The name chosen for the pamphlet bearing this latter cognomen struck us as peculiarly unfelicitous. The ambitious aspirant was surely in gross ignorance of the educational history of this State, else certainly he would not have selected a name synonymous, in its later years, with jobbery, incompetency, and contempt. As his legitimate occupation is newspaper-reporting, let our readers make some allowances for him. (This newspaper educationalism always reminds us of Bret Harte's "French, with a perfect Benicia accent.")

Neither this gentleman nor any of the other competitors saw fit to appear before the Board. We are assured that one, at least, considered the "game" safe enough without special exertion.

The strength of the JOURNAL lay entirely in the justice of its cause. When the editor stood before the Board, it was with the support of the whole educational department of California. It was the superintendents, the boards of education, the teachers, who gave force to the claim of literary and educational superiority, of past services to education, of honesty of purpose and fidelity of execution. The school departments of the State virtually said: "Here is *our* organ; it has no competitor; to antagonize it is to go counter to the educational welfare of the State. If the interests of the State Superintendent's office are identical with the best interests of the schools, then disregard politics and the reward of political favorites, disregard the desire to serve private friendships, and perform fully and freely your duty to the public."

If our strongly-worded indorsements and recommendations from superintendents and boards of education, from trustees and teachers, mean anything, they mean neither more nor less than this.

To supply every possible motive, and because our magazine is an honest enterprise, we made the proposition to supply the school districts of the State at the rate of one dollar a year.

Our readers will naturally conclude that in the claims of the different periodicals the presentation must have been very one-sided. The only possible motive for change that seems to have occurred to the educational public, was the application of that delightful and highly moral doctrine, "To the victors belong the spoils."

But one competitor, the latest and best supported (though not by educators), very ingenuously veiled that doctrine by the specious claim of "literary superiority." This gentleman's name is Flynn; his paper is called the "California Teacher."

The more we consider the claims made by him, the specimen number he submitted, and the printed proposition laid before the Board, the more colossal seems his audacious impudence. Judging from an honest standpoint, there is absolutely nothing in his favor. The claim of literary superiority made was an insult in view of the journal submitted as the only visible evidence of its existence. The history of the young gentleman is that of a clever writer of funny paragraphs for the daily press. He is personally popular with his associates, but has never had the management of even a daily or weekly newspaper. His competency for any leading position is merely a matter of hearsay testimony.

The "California Teacher," submitted to the Board, is in itself conclusive evidence of his unfitness to edit an educational journal. There is absolutely nothing in the pamphlet but a number of reprinted articles, all of which have already been scattered broadcast throughout the State, and some reprinted in the sheet miscalled the "Advance."

Yet so apparent a fraud was shamelessly presented by the author, and an attempt made to foist it on the educators of the State, at the expense of the library fund of every school district.

The attempt failed, and we have confidence enough in the wisdom and integrity of the State Board to believe that it will not be seriously revived.

To resume our account of the proceedings of the Board:

Prof. Allen offered a resolution redesignating the JOURNAL. This resolution, together with others calling for bonds for the faithful performance of our contract with the Board, was unanimously adopted. The Board then adjourned until the next regular meeting, or subject to the call of the State Superintendent.

On the same evening the Superintendent called another meeting. He then expressed a wish that the resolution redesignating the JOURNAL might be reconsidered. From motives of courtesy, such reconsideration was moved and carried.

He then moved that the resolution redesignating the JOURNAL be rescinded. The motion was lost, Prof. Welcker voting aye, and Governor Stoneman and Prof. Allen, no. He then moved to substitute the name of the "California Teacher" for that of THE PACIFIC SCHOOL JOURNAL, and \$1.50 a year for \$1. This motion was also lost by the same vote. The Board thereupon adjourned.

Great credit is due, especially, to the chief magistrate of this State, Governor George Stoneman, for his wise patriotism in considering the subject. He deprecated any admission of politics into our educational system. He indicated that in his opinion the JOURNAL was superior as a literary, certainly as an educational, journal to either its competitors. "Such view," he said, "is merely a matter of

opinion," and he was "willing to be guided" in his opinion "by the universal educational sentiment of the State."

He said, further, that he wished "to do his duty to the people of the State in the economic administration of the finances." As THE PACIFIC SCHOOL JOURNAL was offered at a lower rate than its competitors, he "would not willingly disburse three thousand dollars per year for a journal, when one equal if not superior could be had for two thousand."

On these grounds, among others, he supported the JOURNAL.

Prof. Allen, in discussing the relative merits of the competitors, showed himself well worthy his place at the head of the profession in California. He proved that he fully comprehended the functions of a good educational journal, and was well aware of the true import of a change. He stood before the Board, the embodiment of the sentiment of the educators of the State, and well sustained a reputation that will go down in the history of our educational system beside the names of Horace Mann and John Swett.

CIVIL SERVICE REFORM.

HERE is a point for George William Curtis and the Civil Service Reformers. It is urged by the opponents of reform, and with great pertinacity, that tenure of office during efficiency and good behavior will create an aristocracy of office-holders. Does not the present system tend precisely to that end? Have we not an aristocracy—or more correctly a *kakistocracy*—of office-holders now?

What but "aristocrats" are the thousands of young men whose sole occupation is politics? whose only visible means of support are the drippings from the public treasury?

The Spoils System creates and fosters a class of "aristocrats," the meanest and vilest the world has ever seen. Their most distinguished leaders are keepers of gin-palaces; and the subordinates are habitual if not professional attendants on free-lunch counters. Here is the secret of the power of the "bosses." When their party is in power, they quarter their parasites on every department of the public service; when they are "out," their henchmen subsist at their counters, and eke out a precarious but congenial existence by robbing unwary countrymen at the game of "pedro." These creatures sometimes marry and have families; but more frequently they live on the earnings of poor, fallen women, who are yet infinitely nobler than they.

Is it strange our government is corrupt when such creatures form the rank and file who apply the principles on which it is founded? Is it not a disgrace to American manhood, a mark of degradation, a badge of moral slavery, that a dispenser of the poison that curses nine-tenths of humanity should influence the destiny of every citizen in our republic? Yet the Spoils System makes such masters and their tools possible. It establishes a caste of office-holders who are never, by any chance, anything else. They are the "aristocrats" now. If Civil Service Reform will give us a class of educated men, who will devote to the public service the same intelligence and honesty that would be demanded of them by private enterprise, the country cannot but be benefited. It may be the substitution of one caste for another; but virtue and culture will take the place of the very Pariahs of society.

HOW THE SCHOOL-MASTER MAY BE ABROAD.

IN ex-State Superintendent Campbell's biennial report for 1881-82 are furnished some statistics calculated to make even the unreflecting think, and to afford deep concern to every advocate of popular education. According to the figures, there are now 216,330 children of school age (between the ages of five and seventeen) in this State. Allowing about 16,000 between the ages of five and six, there remain 200,000 who might be in attendance on our schools. As attending schools, we have given 152,217 in the public schools, and 14,572 in the private schools, a total of 166,789.

But, as Supt. Campbell observes, in order to obtain a correct estimate of the attendance at school of census children, we must take the average number belonging; that is, the number of children who can be considered as actual pupils of the public schools, instead of the total number enrolled, as in this number are included all those who attend for so short a time—sometimes only for a day, or at longest for a week—that they cannot be classed as pupils of the public schools. The real school attendance will then stand as in the following table:

Number of census children attending public schools.....	116,047
Number of census children attending private schools.....	14,572
Number of census children not attending any school.....	49,541
Percentage of census children attending public schools.....	64.42
Percentage of census children attending private schools.....	8.09
Percentage of census children not attending any school.....	27.49

While some of this number probably attended some school at some time, it is unquestionably true that one-fourth of the children of the State, year after year, get no schooling whatever, and grow up to manhood and womanhood perfectly illiterate.

Nor is this non-attendance confined to the large cities, as many suppose; the percentage is about the same in San Francisco and Del Norte, in the agricultural and the mining districts. Remedies for this serious and threatening evil will perhaps suggest themselves when the causes are known.

The indifference of parents, their poverty, their avarice, indisposition on the part of the children, truancy, lack of home-training—all these are instrumental in reducing the rate of school attendance.

A stringent compulsory law, together with an extension of our present system of apportionment of school moneys on the basis of actual attendance, would probably prove efficacious in increasing the percentage of the regular school-goers. In this way the State both rewards and punishes; every district is interested in securing the attendance of every child within its limits; the force of an overpowering public sentiment coerces the indifferent and the avaricious to do their part for the common good.

There is, however, one factor in this problem that has been neglected. In the vast extent of territory covered by our State, where single counties cover the area of some Eastern States, a school district is often the size of an ordinary county. (Indeed, we know of one district 120 miles long and 10 miles wide.) So there are frequently two or three families in such districts who live so far from the school-house that their children cannot attend by any means in their power. We believe a moderate estimate of this class will place the number of their children at 16,000, or nearly one-third of the number not attending school.

We know the number to be large, for in counties as central and densely populated as Alameda there are hundreds of families, "living in the hills," whose children can never get to the nearest district school, four or five miles away.

What is the remedy? This is a difficult question. The only answer we can give is suggested to us by a philanthropic and intelligent gentleman, a school trustee, Mr. Henry Curtner, of Alameda County.

Mr. Curtner's suggestion is, that if the children cannot go to school, let the school go to them. In every county on the Pacific coast (and elsewhere probably) there are localities so thinly populated that they can support no school in any central locality. Let such localities be set apart as districts for an *itinerant teacher*. Let this teacher go from house to house, stopping a week or a fortnight at each, and give in every family the rudiments of an education.

Who can doubt the immense benefit of some such scheme? Then, indeed would the school-master be abroad. Homes where now no book is seen, which have never felt the refining influence of letters, or known the presence of culture would be illumined by the glow which accompanies the bearer of knowledge.

Association with a person of gentle manners could not but affect the manners of those now among the rudest of their kind. The good to be accomplished would be immeasurably greater than any possible expense; objections sink into insignificance compared with the magnitude of the evil to be eradicated.

BACK NUMBERS WANTED.

THE following back numbers of the Journal are wanted, for which we shall pay the several amounts set opposite their names:

Ten copies each of June, August, October, December, 1877, 25 cents; ten copies each of February, September, December, 1880, 15 cents; ten copies each of April, May, 1881, and ten copies each of January, June, September, November, 1882, 10 cents.

AN EXCELLENT OPPORTUNITY.

THOSE of our readers who had the pleasure of listening to the graphic word-paintings of Mayor H. C. Dane last autumn will be glad to learn that he will soon be with us again. Superintendents who wish to add more than ordinary interest to the sessions of their Institutes will do well to communicate with Mr. Roman, who has charge of Mayor Dane's engagements while on this coast.

COUNTY INSTITUTES.

THE Institute season for 1883 has begun. The editor of the JOURNAL desires this year to visit as many counties as his time permits. He has already a number of engagements ahead, and superintendents who desire his attendance should make early arrangements.

TO THE MEMBERS OF THE TEACHERS' ASSOCIATION OF CALIFORNIA.

THE Executive Committee of the Teachers' Association of California desire to state to the members of the Association that they have reluctantly abandoned the plan of publishing the proceedings of the last convention. It was found that such publication would exhaust the balance in the treasury, thus making it impossible to meet the preliminary expenses of the next meeting, without resorting to the precarious method of levying assessments, or of soliciting contributions.

Communications have been sent to the County Superintendents requesting them to solicit subscriptions from teachers and others interested in this publication, but the answers received offer no encouragement to proceed with the undertaking.

The total receipts of the last convention were \$87.50; the total expenditures, \$98.15, leaving a balance of \$61.20, brought forward from the preceding year.

Private contributions amounting to \$6.30, to provide for the publication of the proceedings, are in the hands of the President, and will be returned to the subscribers at the earliest opportunity.

WILLIAM WHITE, *President*,
 PHILIP PRIOR, *Secretary*,
 J. B. McCHESNEY,
 JAMES DENMAN,
 W. W. ANDERSON,

G. P. HARTLEY,
 C. W. CHILDS,
 FRED. M. CAMPBELL,
 S. D. WATERMAN,
Executive Committee.

CROWDED DEPARTMENTS.

THE Official Department is of unusual length this month. It is, however, of such great interest and value that we willingly omit considerable local intelligence, and reviews of books received from Sheldon & Co., Ivson, Blake-man, Taylor & Co., Van Antwerp, Bragg & Co., Charles Scribner's Sons, Lee & Shepard, Houghton, Mifflin & Co., and Harper & Brothers. These reviews will appear in our May issue, which promises to be a number of great variety and interest.

OFFICIAL DEPARTMENT.

SUPERINTENDENT WILLIAM T. WELCKER, EDITOR.

STATE OF CALIFORNIA,
 DEPARTMENT OF PUBLIC INSTRUCTION, }
 SACRAMENTO, March —, 1883.

To the Trustees of School District —, in — County, California :

GENTLEMEN: For the purpose of rendering the University of California more accessible to the pupils of the public schools of the State, and allowing the

advantages of that institution of higher learning to be enjoyed by all, the rich and poor alike, a bill was introduced in the last Legislature by the Hon. A. Caminetti of Amador County, the provisions of which are as follows :

An Act to amend section one thousand six hundred and sixty-three of the Political Code, in relation to public schools, and requiring Boards of Education in the several counties to organize primary and grammar schools, and prescribe a course of study therefor.

[Approved March 9th, 1883.]

The People of the State of California, represented in Senate and Assembly, do enact as follows :

SECTION 1. Section one thousand six hundred and sixty-three of the Political Code of the State of California is hereby amended to be read as follows :

Section 1663. 1. All schools, unless otherwise provided by law, must be divided into primary and grammar grades. The County Board of Education must, on or before the first day of July, eighteen hundred and eighty-three, prescribe the course of study in each grade ; *provided* that it shall not conflict with section one thousand six hundred and sixty-five of this Code.

2. The Board shall also prescribe a course of study, not in conflict with said section one thousand six hundred and sixty-five, that will fit and prepare the students therein to enter the scientific departments of the University of California, to be divided into four grades, requiring one year to each grade, and to be known as the Grammar School Course.

3. The Grammar School Course shall apply to and be taught in school districts which have elected to have the same taught as hereinafter provided.

4. The Board of Trustees of any district may, by order duly made and entered on its minutes, upon petition or otherwise, call meetings of the qualified electors of the district, as provided in subdivision twenty of section one thousand six hundred and seventeen of this Code, to determine whether the Grammar School Course shall be taught in such district.

5. If such course shall be chosen, it shall thereafter in such district take the place of and be substituted for the course prescribed for the grammar grade.

6. The County Board of Education shall provide and require that examinations in each of said courses shall take place at stated periods not less than twice in each school year, for promotion. It shall also provide for conferring diplomas at the end of the course of study in the grammar grade and in the Grammar School Course for those who satisfactorily pass the required examinations.

7. The County Board of Education may amend and change, subject to said section one thousand six hundred and sixty-five, either of the above courses of study whenever necessary.

SEC. 2. This act shall take effect and be in force fifty days after its passage.

This bill was approved March 9th, 1883.

It will be seen that whenever a district is financially able to employ, in addition to the necessary primary-grade teaching force, at least one good grammar-grade teacher who is able to give good instruction in the requirements Nos. 1, 2, 3, 4, and 14 of Bulletin No. 6 of the University (which are given below), and the people of the district shall so elect, there will at once be established a system whereby the young people of that district may enjoy the benefits of their own free university.

[Extracts from University Bulletin No. 6.]

REQUIREMENTS FOR ADMISSION.

N. B.—All examinations are conducted in writing, except such as must of necessity be oral, such as reading and the pronunciation of a foreign language. Candidates must be at least sixteen years of age, and must present certificates of good moral character.

All candidates for courses leading to a degree, and candidates for the Student at Large Course, must pass a satisfactory examination in the five following-named subjects :

I. ENGLISH. Candidates will be required to write a composition of at least two (foolscap) pages in length, correct in spelling, punctuation, grammar, and division into paragraphs, upon a subject announced at the time of the examination. It is suggested that the composition be such as one would naturally address to a friend who knew nothing of the subject, and to whom he wished to impart a clear and enjoyable idea of it. Candidates will also be expected to analyze sentences from the works used in preparation, and to pass an examination in the elements of prose composition, as contained in a book like Kellogg's Text-book on Rhetoric. Acceptable preparation is impossible without much practice in composition writing.

The subjects for 1883 will be chosen from one of the following works : Tom Brown's School Days at Rugby ; Charles and Mary Lamb's Tales from Shakspeare ; Dickens' Christmas Stories and David Copperfield ; Scott's Marmion and Quentin Durward ; Shakspeare's Merchant of Venice and Julius Cæsar.

For 1884 the subjects will be taken from one of the following : Tom Brown's School Days at Rugby ; Irving's Sketch Book ; Dickens' Christmas Stories ; Scott's Lady of the Lake and Kenilworth ; Shakspeare's Merchant of Venice and Julius Cæsar.

2, 3, 4. MATHEMATICS. (2) *Arithmetic*. Higher arithmetic, including the metric system, but omitting the technical parts of commercial arithmetic. (3) *Algebra*, through quadratic equations, except for applicants for the Classical and Literary Courses, who will be examined to quadratics. (4) *Plane Geometry*, as much as is contained in Newcomb's or Wentworth's Plane Geometry, omitting Isoperimetrical Polygons, except for applicants for the Classical and the Literary Courses, who will be examined in the equivalent of five books of Newcomb's or four books of Wentworth's Geometry.

Candidates who intend to pursue special courses in science, or to enter either of the Colleges of Mechanics, Mining, or Engineering, are advised to prepare themselves for examination in the following additional subjects : (1) *Solid and Spherical Geometry*. (2) *Advanced Algebra*. (3) *Plane Trigonometry*, including the solution of triangles and the use of logarithmic tables. (4) *Plane Analytical Geometry*.

Those who pass these additional examinations will be admitted to advanced classes in mathematics, and will thus gain time for more advanced work in their special lines of study later in the course.

5. HISTORY AND GEOGRAPHY. History of the United States, the general facts of Physical and Political Geography. Barnes's Brief History of the United States, and the geographies used in first-grade grammar schools, will serve to indicate the amount of knowledge expected.

11, 12. Any two of the following-named subjects :

(1) PHYSICS. The elements of Physics (Avery's Natural Philosophy, Peck's Ganot's Introductory Course of Natural Philosophy, or an equivalent).

(2) **CHEMISTRY.** The elements of chemistry (a thorough acquaintance with Meads' Chemical Primer, or Elliott and Storer's Chemistry, or an equivalent).

(3) **BOTANY.** The elements of botany (an accurate knowledge of Part I of Gray's How Plants Grow, together with an acquaintance with the more prominent native or cultivated plants, their structure and botanical affinities).

(4) **PHYSIOLOGY.** The elements of physiology (Hutchinson's or an equivalent).

(5) **FREE-HAND DRAWING.**

(6) **MINERALOGY.** The elements of mineralogy. A good knowledge of the physical properties of minerals in general. Ability to determine by their physical properties alone twenty-five of the commonest minerals, and give reasons for determination. First seventy-two pages of Nichol's Manual of Mineralogy, or first seventy-five pages of Dana's third edition.

Applicants who pass with honors in chemistry will be put in an advanced division.

COURSE IN LETTERS AND SCIENCE, AND THE COURSES IN SCIENCE.

Candidates for the Course in Letters and Science, and for either of the Courses in Science, viz., Agriculture, Mechanics, Mining, Engineering, and Chemistry, must pass a satisfactory examination on subjects 1, 2, 3, 4, 5, 11, and 12 as above, and subjects 13 and 14, as follows:

13. **HISTORY.** History of England; Anderson's will indicate the amount. General History will be accepted in exceptional cases.

14. **ENGLISH.** The examination in English will presuppose thorough study of the selections named below. The candidate should be prepared to elucidate in full the meaning of any passage in the works assigned, and to write in good English such a composition on any one of them as would convey a clear idea of its character and scope to a person unfamiliar with the subject.

The examination will extend over two periods of an hour and a half each. Signal failures in this examination alone will subject the applicant to exclusion from the Course in Letters and Science.

The examination will be given upon the following selections: American prose; American poems; Addison's Sir Roger de Coverly; Milton's *l'Allegro* and *Il Penseroso*; Byron's Prisoner of Chillon; Goldsmith's Deserted Village and Traveler; Burns' Cotter's Saturday Night; Scott's Lay of the Last Minstrel; Bacon's Essays of Truth, of Revenge, of Envy, of Boldness, of Travel, of Riches, and of Studies, and Macaulay's Essay on the Pilgrim's Progress.

Candidates for the Course in Letters and Science, who prefer, will be admitted on the requirements for the Classical or Literary Course.

[The volumes entitled American Prose and American Poems are published by Houghton, Mifflin & Co., Boston; the Clarendon Press edition of Shakspeare's plays, or that by Rolfe, is recommended; the other works may be found in a series entitled "English Classics," at ten cents a copy, published by Clark & Maynard, New York.

Skeat's Etymological Dictionary of the English language is recommended as the standard work upon derivation.]

Candidates who pass without conditions will be credited with honors on subjects on which they pass with special excellence; but honors will not be given to a student who enters with a condition.

A candidate may take all his examinations either in June or in August, or he may divide them, taking part of the subjects in June and the remaining subjects

in August. If, however, he takes his entire examination in June, and fails to gain admission, he will not be admitted to the August examinations. Also, a candidate who fails to gain admission at the examinations of one year will not be credited at the examination of any subsequent year with any subject on which he may have passed.

NOTE.—Candidates will not be examined for admission at any other times than those above mentioned, except for special reasons of the most urgent kind. The attention of teachers and students is called to the fact that each examination is limited in time.

It appears from what precedes, that a student may be admitted to the Colleges of Agriculture, Civil Engineering, Chemistry, Mining, or Mechanic Arts, by passing a satisfactory examination on the requirements numbered 1, 2, 3, 4, 5, 13, 14, and those numbered 11 and 12. In the latter, any two of the six subdivisions will suffice; as for instance, *free-hand drawing* and *physiology*, which is now required by section one thousand six hundred and sixty-five of the Political Code to be taught, and is taught, in the grammar grade.

This would admit the applicant to full standing in the Freshman Class of either of the five colleges above named.

It is feared by some that four years after leaving the primary grade would not suffice to prepare students for the University. If this be true, the remedy would be found in the hands of the County Superintendent of Schools and of the Board of Education. In grading and arranging the course of studies for those districts where the people shall elect to establish the "Grammar School Course," they could move the line of demarkation up two years, giving two years longer to the primary grades with the corresponding increase of studies taken from the grade above, and leaving four years to the grammar course grade in which to prepare for the University. Even should the pupils never go to the University, they will be immensely benefited by this broader culture.

I have consulted with the President of the University, and through him with the Faculty, and find them disposed to do everything in their power to facilitate the entrance of the young men and women of the State into that institution.

I learn from the President that the Faculty has just passed the following resolution:

"An applicant who has not been able to attend a school in which complete preparation for the University is offered, and who passes a good examination on subjects 1, 2, 3, 4, and 14, may be admitted to a partial course in either of the Colleges of Science, with the privilege of gaining full standing whenever he makes up his deficiencies."

"The Professor of English Literature announces his willingness to accept *equivalents* for the requirements laid down under subject 14, provided the equivalents receive his approval. It will be desirable, indeed in all probability necessary, that his approval should be obtained at least a school year before the applicant intends to present himself for examination." President Reid says: "The Faculty will, I am sure, extend to students admitted under the provisions of this resolution, and who show unmistakable ability and the disposition to do the work of the College they enter in a satisfactory way, every reasonable consideration with respect to deficiencies."

This measure is in nowise intended to interfere with High Schools in their work of complete preparation for any and all of the Colleges of the University; nor in their work upon their general course of studies for those not intending to enter the University.

It will be seen by examining requirements 1, 2, 3, 4, 5, 11, 12, 13, and 14, that it is possible in many of the districts throughout the State to prepare students to enter any of the *scientific* colleges of the University. To enter the College of Letters, in either course thereof, requires some preparation in Latin or Latin and Greek, and classical history and classical geography. These requirements, it is apprehended, are not at the present time so easily attainable as those for the Colleges of Science; albeit the amount of mathematics required is not nearly so great as for the latter colleges.

Finally, by the wise and liberal spirit animating the Faculty of the University, it has been rendered possible to enter that institution on a partial course, which may afterwards be filled out into a complete course, bringing a degree, by having a reasonably good preparation in *grammar* and *composition* in our own language; of *arithmetic*; of *algebra*, to include quadratic or equations of the second degree; *geometry*, up to solid geometry or geometry of three dimensions; *English literature*, to the limited extent described in requirement 14.

I earnestly commend the serious consideration of this scheme, whereby the University may become the great and beneficial institution which it was intended to be, to the teachers, educational authorities, and to the *people* of the whole State.

WM. T. WELCKER,

Superintendent of Public Instruction.

DEAR MISS—State Certificates are no longer issued by the State Board of Education. That Board, under the new Constitution, issues to teachers only *Educational Diplomas* and *Life Diplomas*.

You will see in the tenth subdivision of section 1521 of the Political Code (p. 4, School Laws), that Educational Diplomas are "issued" to such persons only as have held a first-grade State, city, county, or city and county certificate for at least one year, and shall furnish satisfactory evidence of having been successfully engaged in teaching for at least five years. Every application for an Educational Diploma must be accompanied by a certified copy of a resolution adopted by a local or county board of Education recommending that the same be granted. All these requisites are the same for a Life Diploma, except that the time of successful teaching must have been ten instead of five years.

You had better communicate at once with the superintendent of schools of your county.

The County Board of Education can, upon your unexpired State certificate, and upon being satisfied in the other requisites named, recommend you to the State Board of Education, for an Educational or Life Diploma (or both) if you are so entitled, and they can grant you a certificate valid in their county.

While the various County Boards have the sole power of certifying teachers within their own jurisdictions, the universal practice is to grant a County Certificate upon presentation of either an Educational or Life Diploma, unless there are insuperable objections to the particular applicant.

DEAR SIR—I have just received your letter of February 28th, in which you inquire concerning the fund out of which the premium upon an insurance policy against fire may be paid. Under section 1621 of the Political Code—page 18, School Law—when a district has maintained a school eight months in the year

the balance on hand from the *County Fund* could be used to pay said premium. Under the Constitution, sec. 6, art. ix, the State apportionment could not be so used. Under the section of the Political Code above referred to, the balance on hand in a district which has *not maintained* school eight months must be reapportioned, and could not be used to pay for insurance.

DEAR SIR—After examining the law bearing upon the subject, I feel satisfied that before the Board of Supervisors can revive a lapsed district they must take all of those steps which they would take if they were creating a new district. The reasons that call for these steps in one case apply as well to the other case.

DEAR SIR—According to section 1712 of the Political Code, the Library Fund is to be expended for "books for a school library," and for school apparatus. It seems to me that text-books for teachers are not books for a library, and that therefore "text-books for the use of teachers" cannot be purchased with the Library Fund. Nor do I think that either teachers' desks or library desks can be purchased with the moneys of the fund. In answer to your second question—under section 1621, if an eight months' school has been maintained, and "there is an unexpended balance, it may be used for the payment of claims against the district outstanding, or it may be used for the year succeeding." Section 1623 reads: "Boards of Trustees are liable as such, in the name of the District, for any judgment against the district for salary due any teacher on contract, and for all debts contracted under the provisions of this chapter, and they must pay such judgment or liabilities out of the school moneys, to the credit of such districts; *provided*, that the contracts mentioned in this section are not in excess of the school moneys accruing to the district for the school year for which the contracts are made, otherwise the district shall not be held liable." The law referred to seems to bear more directly upon the subject than any other. Under this law, the district is liable to the teacher, and will have to pay him for his services, if there was, at the time that he entered upon the performance of his duties, sufficient money to the credit of the district to pay all debts contracted before that time, and to pay for his services in addition. And the natural implication is, although there is no direct enactment upon the subject, notwithstanding the fact the debt accrued in June last, that it may be paid out of the August or September apportionment. If the contract was in excess of the school moneys for the year for which it was contracted, the district shall not be held liable for its payment.

DEAR SIR—I think that trustees have no right to employ one of their number as Census Marshal. It is forbidden by section 1816 of the Political Code.

DEAR MISS—Your note of the 15th inst. was received this morning. You ask: Can the teacher keep school only six months and use the balance of the money, which is over one hundred dollars, for the improving the school grounds? Or are they obliged to maintain school eight months or return the balance to the county fund?

My answer is, that under no consideration could any portion of the State apportionment be so used. Section 6, art. ix, of the Constitution devotes the

State aid exclusively to the support of primary and grammar schools, none of the county school fund could be used for any purpose until after an eight months' school had been maintained. If then there is a balance on hand, it could be used to pay bills for improving the grounds.

DEAR SIR— I have just received your note of the 12th inst., in which you inquire about the construction of the fifteenth subdivision of section 1617 of the Political Code.

1st. Undoubtedly the arrangements are to be made between the Boards of Trustees of both districts, and to the mutual satisfaction of both.

2nd. It seems to me that the superintendent must transfer the money allowed to each child by the preceding apportionment, however unequal that may be to the amount apportioned to those among whom they go.

This seems hard, but I think it is what the law says ; we cannot legislate, but must obey.

DEAR SIR—Your letter of yesterday is at hand. In answer, I say that in my opinion a teacher in the district schools is entitled to pay whenever a holiday falls upon a school day as though school had been kept on that day. Whenever a teacher is excused from work by the other contracting parties, or by the interference of the statute law, it is no fault of the teacher, and the teacher loses no right thereby under the contract. It is no fault of the teacher that work was not done on the holiday, and the teacher was present, or would have been present, and under expenses as usual. Under the previous State administration, the Attorney-General decided that a teacher was entitled to pay for holidays happening in the term the same as for other days.

It seems to me that section 13 of the Political Code does not apply here, but rather to single acts or performances to be done upon a day certain. Moreover, the custom of remunerating professional people is by the year or month, and not by daily wages. I trust that you will, upon further reflection, modify or change your opinion in this particular.

DEAR SIR—Your favor of the 5th inst. is at hand. I agree with you in your interpretation of the law in connection with the matter therein set forth. It is not your province to examine into the legality of transactions between the district trustees and parties with whom they may contract ; and the ability of a district to meet its obligations is a matter that lies between the trustees and the other parties interested. Your sole duty in this connection is to draw warrants in obedience to orders which are properly drawn upon you.

DEAR SIR—In your letter of the 6th instant you ask "how a new district can be organized out of territory situated in two counties." I answer, that in the absence of explicit directions by statute upon the matter, I think the best mode would be to agree with the Superintendent of Schools in the other county affected, upon proper boundaries for the joint districts, and have the same ratified by the Board of Supervisors of each county.

2nd. You inquire, "When a district lapses, what becomes of the school

property, school library, etc., and in what district will the children be entitled to attend school." There is no certain provision for the property of lapsed districts made by law. I should say that naturally it fell into the hands of the Superintendent of schools of the county, and that he should, as to the disposal of it, consult with the District Attorney and the Board of Supervisors of his county. Under section 1662, the trustees of any district have authority "to admit adults and *children not residing* in the district when good reason exists therefor." Under this, the most convenient might admit the children.

DEAR SIR—Your diploma has the same force and effect at the present time that it had when it was granted to you. On page 46 of the School Law you will find, in an Act of the Legislature of 1880, the following language: "All Life Diplomas issued in the State of California, under and in pursuance of the laws thereof, on or before the 31st day of December, eighteen hundred and seventy-nine, shall be and the same are hereby continued in full force and effect, and shall be *valid for all purposes*, and to the full extent of time that the same were and were intended respectively to be, under the said laws," etc.

This statute, in effect, keeps up for the old system of machinery, which existed prior to the 31st day of December, 1879, so far as Life Diplomas are concerned, which were issued prior to that date.

One of the rules applicable to the system of machinery prior to that date was that the holders of diplomas are eligible to teach in any public school, except in High Schools in which languages other than English are required to be taught by such teachers.

If the law did not formerly require you to get a county certificate, it cannot now and does not require that you shall have first obtained such a certificate.

DEAR MADAM—I think that the school apparatus mentioned in section 1712 refers to, and that by the term "apparatus" is meant, those material instruments which are used solely in the process of conveying instruction to the minds of the pupils, such as maps, globes, etc. If this is the correct interpretation of the term "apparatus," a book-case cannot be purchased with the Library Fund. The law of this State applicable formerly read: "The Board of Trustees shall expend the entire ten per cent. set apart as a Library Fund, together with such sums as may be added thereto by subscription or donation in the purchase of such books as may be authorized by the State Board of Education." When the law was amended, the objects of the amendment did not include a change in the intent of this section.

DEAR SIR—I have just received your note, in which you inquire "if it is the duty of the public school trustees to exclude Mongolian children from the public schools under the law as it now reads." And secondly, "If so, may they be admitted if they pay into the school an amount of money satisfactory to the trustees."

My answer is, that, while I do not know of any law passed by the Legislature expressly providing for the exclusion of Mongolians from the public schools, the Constitution, the great fundamental law passed by the people, through and under which the Legislature and all other departments of the government exist and operate, does, by a strong and plain intendment, forbid the presence of such children in those schools.

The Constitution, in article ix, section 1, gives as a reason for the maintenance of the public schools, that "a general diffusion of knowledge and intelligence being essential to the preservation of the rights and liberties of the people, the Legislature shall encourage by all suitable means the promotion of intellectual, scientific, moral, and agricultural improvement."

The people here meant are those who are or who are eligible to become citizens, with their families. Indeed, in the article on Chinese, article xix of the Constitution, the Chinese are declared "foreigners, ineligible to become citizens." Now, if in order to justify taxation for the support of public schools, the Constitution points out the benefit to be derived by the people from a general cultivation of the intellect and morals among the people, or those eligible and likely to become a portion of the people, it leaves no room to include others.

Moreover, the State in disbursing the educational fund expects to receive a return, a *quid pro quo*; which return it expects from the influence of the public instruction, upon the minds and morals of the people, of those who are to shape the institutions and policy, and to conduct the affairs of the State. This would exclude Chinese from the public schools.

Again: the Constitution, in article xix, section 4, says: "The presence of foreigners ineligible to become citizens of the United States is declared to be dangerous to the well-being of the State, and the Legislature shall discourage their immigration by all the means within its power." The whole drift of article xix is unmistakably hostile to the Chinese coming into the State or remaining in the State under any conditions whatever. To admit Mongolian children to the public schools would therefore be in direct disobedience to the Constitution, for this would be to foster their presence here in the most efficacious manner, while the Constitution declares their presence "to be dangerous to the well-being of the State," and would directly and enormously encourage their immigration, which the Constitution commands the Legislature to discourage "*by all means within its power.*"

Every officer before entering on the duties of his office takes the oath of office, whereby he solemnly swears to support the Constitution of the State. So you can see that it is the duty of all school officials to rigidly exclude Mongolians from the public Schools.

In reference to the second question, my answer is, that no amount of money would justify the school authorities in admitting Mongolian children into the public schools of the State.

A meeting of the State Board of Education was held at the office of the Superintendent of Public Instruction, Sacramento, on Saturday, March 17th, 1883.

Present, Governor George Stoneman President, Superintendent William T. Welcker, and Prof. Chas. H. Allen.

The minutes of the last meeting were read and approved.

Educational Diplomas were granted as follows:

Louis B. Chaloner,	Alice E. Perkins,
Mrs. Cynthia J. King,	Emily F. Ives,
Miss Hermine Schuck,	Miss Mary Von Buchholtz,
Miss Lucy W. Haile,	Miss Nellie Armstrong,
Miss Sophia Knopff,	Miss Lena M. Devine,
George H. Bently,	Miss Sarah E. Hewes,
Ella Gertrude Groves,	Ella L. Ciprico,
Julia A. Danks,	Miss Rosie A. Fitzsimmons.

Life Diplomas were granted as follows :

Mrs. Laura B. Hart,

John W. Reese,

Benjamin F. Whittemore,

Miss Belle Harrison.

On motion, the foregoing Educational and Life Diplomas were granted by the unanimous vote of the Board.

A resolution was then introduced and adopted by the Board, "that the applications for Educational Diplomas for the following persons be returned, and the full first name required":

Mrs. J. A. Perry,

G. Matthieson,

Mrs. E. S. Bonelli,

C. H. Woods,

Mrs. L. B. Howard,

and to Chas. T. Wise because

he had not held the first-grade certificate for one year.

The following resolution was also adopted:

Resolved, that the application for Life Diplomas of the following persons be returned, and the full name required :

Mr. E. B. Pernell.

The following resolution was introduced by C. H. Allen :

Resolved, that in the minutes of the last previous meeting of the Board of Education, held Dec. 30th, 1882, the name as recorded Harvey C. Skelton be changed to Harvey C. Shelton, it appearing that there was a clerical error in recording the same. Carried.

Resolved, that the question as to the use of \$3, mentioned in section 1757 as a fee for Life Diplomas, be referred to the Attorney-General, asking him to render an opinion as to the disposition of whatever surplus may remain after defraying the necessary expenses of procuring and preparing the diplomas. Carried.

CORRESPONDENCE.

A MILD REPLY.

IF Mr. Turner wants the proofs of my positions in the October number, I would refer him to the pages of the *Pacific*, the *Christian Advocate*, the *Occident*, and other religious papers (which I hardly think he reads). Also to the articles from religious people during the squabble in Cincinnati about the Bible in the schools; to the Codes of California, and the speeches made for and against certain sections; to the numerous bills on religious subjects introduced into every legislature; to the laws and customs bearing against the taxation of church property and ministers in almost every State of the Union (and if they do not pay their full taxes, we are indirectly taxed for their support).

As to the article being foreign to the subject, I think the sketch of A Hoodlum without a pretty full account of his moral training would be very incomplete; and the October chapter was handed to a good Christian teacher, a church member, with instructions to mark out false statements and objectionable passages. After making due correction and modification in every case marked, it was given to still another person for revision. By direct

inquiry among the religious people of the neighborhood, I found every one I asked supported the positions given; nor do I remember one church member among the hundreds I have talked with in the ten years I have taught in California (and I have taught in seven counties, from Yuba to San Diego), who did not substantially say:

1. It is wrong to tax church property, and right to get all the money you can from non-church members for the support of the church.
2. Civil laws should agree with and be based upon the Bible.
3. Moral training, without religious training, is comparatively valueless.

If Mr. Turner is not a church member, he shows one of the marks very plainly; but if he had borne for one year the persecution I have borne for opinion's sake during seventeen years of teaching, I doubt whether he would have more candor, fairness, toleration, etc., than I try to have. For example, believing Sunday-schools do good work in certain directions, though the people here all know my religious views, I attend Sunday-school and church regularly, act as choirister and organist without pay, and give in cash my due proportion for the support of the school. Does that look *very* bigoted and intolerant? I confess ignorance on many other subjects besides religion, but I have some fifty theological works in my library that have been thoroughly read and studied. Has Mr. Turner ever read any?

Now I greatly disapprove of anything like religious controversy in the pages of our SCHOOL JOURNAL, so I shall make no further defense of my October article, but I will try to be better after this; and as my only specialty is bee-keeping, if I continue to write for the JOURNAL, I am afraid I must "get at sea" many a time, but shall probably land all safe if I have Mr. Turner for a pilot.

Good-humoredly yours,

C. M. DRAKE.

Saticoy.

SCIENCE RECORD.

THIS RECORD is under the editorial charge of Prof. J. B. MCCHESENEY, to whom all communications in reference thereto must be addressed.

G. H. DARWIN maintains that while there is some evidence of the yielding of the body of the earth to the tidal forces exerted by the attraction of the sun and moon, that yielding is very small indeed, and that the rigidity of the earth may, as a whole, be set down as equaling that of steel.

MR. WAKE, engineer of the River Wear Commissioners, and Mr. Irish, manager of the Northern District Telephone Company, in England, have made some interesting experiments in the use of the telephone by divers. The length of the cable connecting the receiver in the diver's helmet with the transmitter above water was six hundred yards. It was found that the diver could converse with ease, and ask for tools in any position in which his work might require him to place himself.

THE following experiment in the way of physics without apparatus is given by a correspondent of *La Nature*. A clay pipe is laid over the top of a large wine-glass, and a person is required to bring it down to the table without touching either pipe or glass, with-

out agitating the air or moving the table. The solution of the problem consists in taking up another like glass, rubbing it vigorously on your sleeve, then bringing it near the pipe-stem, which is thereupon strongly attracted, so that the pipe falls. This experiment is a pretty variation of the electric pendulum, and shows that pipe-clay, a very bad conductor of electricity, yields readily to the attraction of an electrified body.

INVASIONS OF RATS IN CHINA.—A few months ago it was stated that Russian Turkestan was suffering from an invasion of mice from India. These visitations are familiar in Asia. Chinese histories record that "on three occasions an army of rats invaded the country; in one instance these insatiable vermin, traveling from one place to another, attempted a passage of the Wei River, and were fortunately drowned, their carcasses choking up the banks of the stream for several days after their destruction. On the other occasion, however, they were more successful. Myriads of the creatures appeared in the neighborhood of Nanking from the Hu-Kuang provinces. They are said to have crossed the brooks and rivers in their course during night by making themselves into a moving brigade—each animal seizing the tail of the one in front of him with his teeth, and so swimming across; and on arrival at the other side they threw themselves upon the crops and devoured them. Another time they effected the passage of the Yellow River."—*Pall Mall Gazette*.

THE celebrated French physician and scientist, Dr. Pasteur, has been conducting a series of dangerous experiments on rabid animals, more than two hundred cases of hydrophobia having been carefully observed and studied by him. The results of these experiments prove that hydrophobia in its acute form can be prevented by inoculation. Dr. Pasteur has several dogs that are proof against the attack of any rabid animal, as they have been vaccinated with the virus from a mad dog's brain, he having found that the nervous system is the actual seat of the disease. But these experiments have not as yet proved so practically useful to the world in general as Dr. Pasteur's studies of the *rouget*, or red fever, a disease among swine, destroying twenty thousand last year in France alone. Dr. Pasteur has succeeded in developing a comparatively innocuous form of the microbism causing the disease, with which he vaccinates the swine, fully protecting them against the more fatal form of *rouget*. The same principle has also been successfully applied to horses by a couple of German scientists, as reported in a German medical review.

THE C. L. S. C.

This department is under the editorial charge of Mrs. M. H. FIELD, San Jose, to whom all communications relating thereto must be addressed.

THE winter is over and gone. The C. L. S. C. has just completed a delightful book on astronomy, rightly named "Recreations in Astronomy." No dry array of facts and figures, but a beautiful and enthusiastic description of the great discoveries in astronomical science, with sufficient detail as to methods of observation, and reasons for well-received theories; while through all runs a current of devout religious thought. There has been but one complaint, and that is the lack of thorough and exhaustive treatment—an objection which any candid reader can see arises from the narrow limits of the book. Any reader, Chautauquan or otherwise, will find this both a profitable and pleasant book. We recommend it cordially.

The reading for the months of April and May is mainly on the subject of

physiology. As to the importance of this subject, all are agreed. It is simply wonderful how little we know about ourselves, and how inexplicably foolish has been the lack of interest and knowledge on a theme which one would think paramount to all others. Let every reader of the JOURNAL who has not made a thorough study of physiology and hygiene turn Chautauquan this spring, join the nearest circle, or if that is not practicable, read by himself everything he can find bearing upon this subject. The Hampton Tracts and the readings in the "Chautauquan" will be the text-books of the society.

Preparations are being made for the coming Monterey Assembly. It will take place a little later than was at first planned; will open on the evening of the Fourth of July, and continue for nine days. It has been thought best to have the Assembly include only one Sabbath. No pains will be spared to make this Assembly in every respect even more profitable and delightful than the last. The circulars will be out early, containing full announcements and plans. Meanwhile, let every one who can possibly do so include the Monterey C. L. S. C. Assembly in his or her plans for summer pleasure. The railroad company will do everything in their power to make Monterey accessible and delightful; while the executive committee of the C. L. S. C. will try equally hard to prepare a feast of rare pleasure and profit for their guests. One new feature will be graduating exercises for those who have completed the required course, of whom there are several. If any are contemplating joining the C. L. S. C., they cannot do better than come to Monterey, become acquainted with the managers and members, listen to the lectures, sit down at the round table, and catch the spirit of enthusiasm which prevails; and then go home and spread the contagion.

MATHEMATICS DEPARTMENT.

This department is under the editorial charge of PROF. HAMILTON WALLACE, Superintendent of the Salinas City schools. All communications in reference thereto should be addressed to him.

NOTE 7. Why is the product of two or more proper fractions less than any fraction thus taken? Why is any integral power of a proper fraction less than the fraction thus involved?

NOTE 8. If an article had cost me ten per cent. less, my rate of gain would have been 15 per cent more. Required my rate of gain.

NOTE 9. $\sqrt{x} - \sqrt{y} = 4$. Solve by quadratics.

NOTE 10. The diagonal of a square is 414 feet longer than the side. Required the sides, and method of solution by arithmetic.

NOTE 11. I sold an article for \$900, gaining a certain per cent.; had it cost me \$300 more and sold for the same, the gain per cent. would have been 30 per cent. less. What was the cost?

NOTE 12. Sold an article for a certain price gaining a certain per cent.;

had it cost \$300, I should have made 30 per cent. less by selling it at the same price as before. What was the cost?

NOTE 13. I sold an article for a certain price gaining 20 per cent. If it had cost me \$300, and had it been sold for the same price, there would have been a loss of 20 per cent. What was the cost?

NOTE 14. A ball 12 inches in diameter is in the corner of a room, the floor and walls of which are at right angles; what must be the diameter of another ball which can touch that ball while both touch the same floor and same walls.

NOTE 15. Alison (in History of Europe, vol. 1, p. 514) states that when the l'Orient was destroyed, "the tremendous explosion was followed by a silence still more awful, interrupted only after the lapse of some minutes by the splash of shattered masts and spars falling into the water from the vast height to which they were thrown."

Required the highest point of ascent to which fragments were thrown.

SPELING REFORM DEPARTMENT.

This department is under the editorial charge of a comitee apointed by the Branch Speling Reform Asosiation of California. MISS KATE KENNEDY, A. L. MANN, and MRS. THOMAS VARNEY constitute this editorial comitee. All comunications for the department must be adrest to them.

ORGANIZATION OF CALIFORNIA SPELING REFORM ASOSIATION.

A MEETING of a number of the leading techers of San Francisco and Oakland was held in the JURNAL office March 10th, and a complete organization of the CALIFORNIA SPELING REFORM ASOSIATION was efected. A complete report of this meeting will appear in the next JURNAL; also the Constitution and By-laws of the Asosiation. The crowded state of our colums precludes their publication in this number.

ALBERT LYSER, *Secretary.*

SPELING REFORM.

TEACHERS should not only be abrest of the age, but in advans of it. For they ar the leders of the next generation, hwich must be wiser and beter than this, or obviusly ther can be no progres. A reformd speling, therfore, comends itself with peculiar forse to our profesion. Whatever opinion eny individual may hav about the nature and extent of the reform needed, it is his manifest duty to prech and to practis *sum* reform.

Take the first step, and take it now. If you can go no farther than to spel *rime*, *iland*, and *ake* acording to the last edition of Worcester's Dictionary, do that. That will be enuf to enlist you in the army of reformd spelers, an army hwich is incresing daily in England and America. If you take the first step, you will take others. If you go no farther you wil help to acomplish sumthing to

make life esier and more profitabl to your sucesors. Think how much has been dun in wun generation by Webster and uthers. Look for a moment at thes gosts of the past: *favour, publick, axe, centre, manœuvre*, and ofer thanks that their unlvely fetures are forever laid to rest.

But we can do more, and do it more quickly. The conditions ar vastly more favorabl. Our leding techers, filologists, and authors ar substantially agreed that the reform is resonabl and nesenary. But perfection cannot be recht at a bound. If we wait till a fonetic alfabet is invented by sumbody, and adopted by evrybody, we shal all be in our graves without having beterd the speling of a singl wurd. Menwhile, we can do nothing beter than to join the Speling Reform Asosiation, take the "Fonetic Techer," adopt the twenty rules of the Filological Asosiation, use them in all our writing to frends and periodicals, and so hastn the time hwen English speling shal be as simpl, logical, and practical as is befiting hwat is destind to be the Universal Language. A. L. M.

A HANDFUL OV EARTH.

Here iz a problem, a wunder for ol tu se.

Luk at this marvelous thing I hold in my hand!

This iz a majic surprizing, a misterii

Strainj az a miracl, harder tu understand.

Hwot iz it? onli a handful ov erth: tu yur tuch

A dry, ruf pouder, yu tramp! beneath yur feet,

Dark and lifeles; but think for a moment hou much

It hidz and holdz that iz biutiful, biter, or sweet.

Think ov thi glori ov culor! Thi red of thi roze,

Green ov thi miriad leavz and thi field ov gras,

Yelo az brite az thi sun hwar thi dafodil bloz, Purpl hwar violets nod az thi brezez pas.

Think ov thi manifold form ov thi oak and thi vine,

Nut, and frut, and cluster, and earz ov corn:

Ov thi ankerd woter-lili, a thing divine, Unfolding its dazling sno tu thi kis ov morn.

Think ov thi delicet perfumz borne on thi gale,

Ov thi golden wilo catkin'z odor ov spring,

Ov the breth ov thi rich narcissus waxen pale,

Ov thi sweet-pea'z flite ov flouerz, ov thi netl'z sting.

Strainj that this lifeles thing givz vine, flouer, tree.

Culor and shape and caracter, fragrans too,

That thi timber that bildz thi hous, thi ship for thi sea.

Out ov this pouder its strength and its tuffnes droo!

That thi coco among thi paamz shud suk its milk

From this dry dust, hwile dates from thi selfsame soil

Sumun thi sweet rich frut, that our shining silk

Thi mulberi leavz shud yield tu thi wurm'z slo toil.

Hou shud thi popi steal sleep from thi versors

That grants tu thi grape-vine juis that can madn or cheer?

Hou duz thi weed find food for its fabric cors

Hwar thi liliz proud thar blosumz piur uprear?

Hu shal cumpas or fathom God'z thot profound!

We can but praiz, for we may not understand;

But thar'z no more biutiful ridl thi hole world round

Than iz hid in this heap ov dust I hold in my hand.

CELIA THAXTER.

EDUCATIONAL INTELLIGENCE.

LOS ANGELES COUNTY.—The Los Angeles City teachers have formed an association for professional culture and social entertainment. The association meets in the high-school building, the fourth Friday of each school month, at 3 P. M. At the January meeting Supt. Guinn read a very valuable and suggestive paper on the relation of the public schools to future citizenship. This was followed by a discussion on the subject, in which a number of the teachers joined.

At the February meeting Mrs. F. N. W. Pond read a highly instructive paper on the value of natural science in mental discipline. Mr. Humphreys of the high school presented a well-written plea for a broader culture and a more extended preparation for the teachers' profession. Select readings, recitations, and illustrations of methods of teaching fill up the time pleasantly and profitably. An evening social is held one evening each month. Los Angeles City now employs forty-six teachers.

The attendance at the Branch Normal School shows a steady increase; the enrollment has reached one hundred and twelve. The enrollment in the Los Angeles City schools for the month of February was two thousand one hundred and fourteen, an increase of forty per cent. over the enrollment for the corresponding month of last year. The Los Angeles County Institute is called for April 9th.

SONOMA COUNTY.—Supt. Smyth informs us that the following teachers have secured positions in the districts named: Miss Carrie Jenkins, Dirigo; Miss Emma Arnold, Fisk's Mill; Miss Fannie Martin, Hamilton; Miss May Moore, Oak Grove; Miss Lizzie Laughlin, Star; Miss Johnnie Strother, Wright; Miss Mary O'Connor, Gilford; Miss Sallie Heald, Mount Vernon; Miss Sallie Bledsoe, Ridenhour; H. E. Footman, Mark West; Lester Stevens, Mill Creek; Geo. F. Myrick, Hall; H. H. Howe and Miss Florence Arnold, Forestville; Mrs. Burns and Miss Sloss continued in charge at Guerneville.

The Sebastapol school opened last Monday with Mr. Sebastian Star as Principal, and Miss Sophia Critchfield, Assistant. There will be no change at Bloomfield, Mr. and Mrs. J. H. Burnett continuing in charge; nor have any new arrangements been made in Sonoma, where the schools will open upon Monday the 16th ult. In Healdsburg studies were resumed upon the first Monday in February, with the same corps of teachers, except for one change, Mr. T. P. Powers, late of Geyserville, having been elected Vice-Principal. H. Ottmer and J. W. Caseras will conduct the school at Bodega. Leander Cummings, at present in Middlesex, Vermont, on a visit, writes that he will return in time to open at Table Mountain district in March.

MENDOCINO COUNTY.—Extracts from minutes Board of Education, Ukiah, March 5th, 1883:

Board called to order at office of Superintendent at 10 A. M.

Present, H. Price, W. H. Young, W. K. Dillingham, and Supt. Ruddock. H. Price in the chair.

Dr. J. R. Thomas presented his credentials as a member of the Board of Education of Mendocino County, and was sworn in.

The Board adopted the following resolution:

Resolved, "That the regular meetings of the Board of Education of Mendocino County, California, be held, commencing on the second Mondays of March and September of each year, and that the examination of teachers commence on the Wednesday following."

The Board proceeded to prepare questions for the examination of teachers.

Pending this work, the Board adjourned until 9 A. M., Tuesday, March 6th, 1883.

Tuesday, March 6th, 1883. Board called to order at 9 A. M. Full board present. H. Price in the chair. Continuation of preparation of questions. Questions prepared, adopted, and given into the hands of the Secretary.

The Board resolved, "That the Superin-

tendent of schools shall hereafter issue Temporary Certificates only to applicants holding valid State Normal School Diplomas of this State, State Educational Diplomas of this State, and Life Diplomas of this State.

Moved that the Chairman appoint a committee of three to revise the Manual for School Teachers and Trustees of Mendocino County, to report the result of their labors to this board at a called meeting. Passed; and J. C. Ruddock, W. K. Dillingham, W. H. Young appointed as said committee.

The Secretary moved that H. Price be added to the committee. Adopted.

Certificates were issued, after examination, to the following applicants:

P. B. Westerman, first grade; Geo. E. Aull, second grade; Miss M. A. Fennell, second grade; Emanuel L. Young, second grade.

The Superintendent was instructed to grant temporary certificates to those persons holding certificates from Mendocino County and actively engaged in teaching, and whose certificates expire prior to the next regular meeting of this Board.

NEWS RECORD.

Foreign and Domestic.

Congress adjourned on March 4th, after passing a bill for tariff reduction. The bill is long and complex, and its effect is not yet fully understood.

The Senate decided to postpone the consideration of the Mexican commercial treaty until next December; also ratified the supplemental extradition treaty between the United States and Spain; and confirmed the Civil Service Commission.

Senator David Davis having resigned the presidency of the U. S. Senate, Senator Edmunds was elected on the 4th to take his place.

On the morning of March 4, Gov. Alexander H. Stephens died at his executive mansion at Atlanta, Ga.

Great distress prevails in the Gweedore section of Donegal, Ireland, where the people are subsisting on sea-weed for food. The children are emaciated from hunger, and almost every house contains persons dying slowly of starvation.

The new French cabinet, which is the thirty-first under the republic, is led by M. Ferry, Minister of Education.

The French flag has been hoisted in Western Madagascar, and the natives have become excited and irritated. Foreign residents have been requested not to visit the interior. The French admiral commanding has been instructed to uphold vigorously the rights of France in the island.

A secret society, known as the "Black Hand," is committing murders and outrages in Andalusia, Spain. They have partially destroyed many plantations. A Madrid journal says that this society includes 990

other associations, with a total membership of 49,910. The executive for Western Europe is at Geneva.

Educational.

Supt. Higbee reports that there are about 20,000 schools in Pennsylvania, 7,800 of which are graded. The enrollment of pupils is nearly 1,000,000, though the average attendance is but 611,000. There are 9,000 male and 12,778 female teachers, but the former are decreasing in numbers and increasing in salaries, while the latter are increasing in numbers and decreasing in salaries. The value of the school property in the State is \$28,000,000, and the expenditures last year were \$8,203,244.

The Secretary of the National Educational Association announces that the next annual meeting of the National Educational Association will be held at Saratoga Springs. The National Council will hold sessions at Congress Hall, July 5th, 6th, and 7th. The general meetings, and other departments, will hold sessions July 9th, 10th, and 11th. The American Institute will follow at Fabyan's, White Mountains, on the 11th, 12th, and 13th.

Gov. Rusk's message to the Legislature of Wisconsin contains the following statistics: The State has at interest a common-school fund of \$2,805,278.23. The Normal-school fund amounts to \$1,165,041.20; all but \$17,969.62 is at interest. The income from this fund last year was \$85,594.98, all of which was disbursed for the benefit of the four normal schools of the State. The University fund amounts to \$228,438.33. The Agricultural College fund, which also inures to the benefit of the University, is

\$279,869. The total valuation of school property, including buildings, sites, libraries, etc., is \$5,614,938. \$2,577,402 was expended upon public and private schools during last year. 87 per cent. of all children in the State between the ages of 7 and 15 attended school during some portion of last year.

During the past four years Milwaukee, Wisconsin, has built three district school-houses, each containing from twelve to sixteen rooms, and costing from \$50,000 to \$70,000. One more is being built, which will surpass in elegance and convenience all others in the State; also two primary-school buildings, costing \$20,000 each, and capable of accommodating 400 or 500 children each, and two branch school-houses costing about \$6,000 each.

On February 7th Hamline University of Minneapolis, Minn., sustained a severe blow in the destruction by fire of its chief building, University Hall. The building, with the steam-heating apparatus, cost about \$60,000, and was insured for \$25,000. It will be immediately rebuilt.

Personal.

Daniel Webster and John G. Whittier both trace their descent from Christopher Hussey, of Hampton, New Hampshire, who married a daughter of the first minister of that town, the Rev. Mr. Bachelor. The black Bachelor eye is said to be famous in their part of the country, and we have heard that there was a glint of it in the eyes of Hawthorne and Caleb Cushing.

Mr. Ruskin having been re-elected to the Slade Professorship of Art at Oxford, everybody, says the *Pall Mall Gazette*, will be delighted to hear of it. "Genius is not an over-common quality in the occupants of professional chairs, and any academical body would do itself honor by accepting a man like Mr. Ruskin on his own terms. The wide circle of Mr. Ruskin's readers outside the university, in England and America, will be equally pleased. His acceptance of the chair is a sign of his restoration to health."

Oliver Wendell Holmes, author of the "Autocrat of the Breakfast Table," etc., has recently resigned his Professorship in Harvard University, in order that he may devote himself more fully to literary pursuits.

During the year 1883 he will write exclusively for *The Atlantic Monthly*, to which he has from the beginning been one of the most constant and most highly valued contributors.

The first of his contributions to the *Atlantic* for 1883 is "An After-Breakfast Talk," in the January number, quite in the spirit and marked by the wisdom and wit of the original "Autocrat" papers.

"There is no man," said John Greenleaf Whittier on his seventy-fifth birthday, "who ought to write much after he is seventy, unless perhaps it may be Dr. Holmes. He ought to write from now until he is one hundred. He is charming in everything he writes, and there is such a wonderful variety in his work that it seems a pity he should ever stop."

General.

Paralysis has attacked the famous novelist and Orientalist Professor, George Ebers, of Leipsic.

On the 13th of December, William Ewart Gladstone completed the fiftieth year of his continuous service in the British House of Commons. A half a century of public toil, of almost unbroken oratorical triumph, and of most fruitful statesmanship, finds this "grand, gray old man" at the summit of political power.—*Exchange*.

Were he an American, his "fruitful statesmanship" would have been deemed good cause to retire him from public life long ago; if for no other reason than to "give some one else a show."

Here is an illustration of the folly of meddling with things you do not understand:

While a party of scientific men were preparing to observe the recent transit of Venus in New Mexico, a powerful equatorial telescope was mounted in an observatory with a clock-work mechanism, which enabled the telescope to accurately follow the sun.

Prof. Davidson was constantly watching the slow course of the planet, which, through the darkened glass, appeared like a small black shot rolling across a plate of pale, gleaming gold.

A bystander was about to apply his eye directly to the end of the telescope, when Prof. Davidson snatched him away in alarm, exclaiming, "It will burn your eye out!" and he told how, for experiment, he had placed a direct object glass in the opening, and the powerfully concentrated rays had melted it almost in a flash.—*Youth's Companion*.

Among the serious accidents of the world in 1882, there stand prominent the great fire in London, loss \$15,000,000, at Haverhill, Mass., loss \$2,000,000; loss of Captain De Long and his party of the Arctic explorers; disastrous tornadoes in the West; scourge of yellow fever in Florida and Texas; heavy floods in the Rhine and Danube valleys of Europe.

John Howard Payne wrote "Home, Sweet Home," while sitting beneath the entrance lamp on the steps of a nobleman's mansion in London, where, his theatrical ventures having failed, he found himself without a shilling to pay for a bed.

Dr. O. W. Holmes says that, much as he has heard of the roots of the tongue, and although he has taught anatomy for thirty-five years, he has never been able to find them.

Among the important affairs of 1882 were: The anarchy in Egypt, reported in May, followed by the bombardment of Alexandria by the British gunboat in July, and a short war, and the banishment of Arabi. Troubles in Ireland have been very serious; the Land League has been broken up, and the prospect is quiet. Mr. Stanley and M. DeBrazza have pushed further explorations and established colonies in the heart of Africa.

LITERARY NOTES.

The April *Atlantic* opens with the first installment of Henry James's Daisy Miller, not the story of that name which everybody has read, but a dramatization of it, with new characters and scenes, adding attractions which will make it quite worth while for all to read it who have read the story, as well as for those who have not read it. This is followed by Pillow-Smoothing Authors, an essay by Dr. Holmes, who furnishes a prelude on Night Caps, and comments on an old writer, namely, Burton, from whom he makes copious extracts. Charles Dudley Warner contributes a remarkably excellent article on Modern Fiction. Miss Sarah Orne Jewett has a delightfully characteristic New England story, entitled A New Parishioner. Richard Grant White contributes an article on the Bacon-Shakespeare Craze, which is remarkably instructive and readable. Bradford Torrey writes for this number an interesting article on Bird-Songs. Elizabeth Robins writes of Stage Buffoons in different countries and times. There are poems by Mr. Aldrich, Rose Hawthorne Lathrop, and others, together with reviews of important recent books, and the usual variety of the Contributors' Club.

In the *North American Review* for April the scriptural and the legal aspects of Divorce are presented respectively by the Rev. Dr. Theodore D. Woolsey and by Judge John A. Jameson; Dr. P. Bender, under the title, A Canadian View of Annexation, makes a forcible presentation of the reasons which incline many citizens of the Dominion to regard with favor the idea of absorption by the United States. Senator John A. Logan sets forth the need which exists for National Aid to Public Schools in the several States and Territories. The Rev. Dr. Howard Crosby writes of The Dangerous Classes, that menace the perpetuity of civil order and the peace of the community, meaning the manipulators of corporation stocks and the men who, having amassed enormous wealth, use it for nefarious purposes. James C. Welling, President of Columbian University, treats of Race Education. The Water Supply of Cities is discussed by Charles F. Wingate, Ethical Systems by Prof. F. H. Hedge, Street Peggging, by Rev. Dr. Charles F. Deems, and Criticism and Christianity, by O. B.

Frothingham. Published at 30 Lafayette Place, New York, and for sale by booksellers generally.

The *Ohio Educational Monthly*, always an excellent journal, now ranks way up among the monthlies. Under the editorial management of Dr. Findley, we know of no educational journal in the United States that is its superior.

Mrs. Burnett's novel, "Through One Administration," is concluded in the April *Century*, the last number of the present volume. The *Century* for May, beginning Volume XXVI., will contain the opening chapters of a novellette by Joel Chandler Harris ("Uncle Remus"), At Teague Poeteets, to be completed in the June issue.

The February *Century*, containing the opening chapters of Mr. Howells's novel, "A Woman's Reason," is again out of print, and a third edition is on the press. The March number is also reprinting.

We have received from Harper & Brothers through A. L. Bancroft & Co., the following numbers of HARPER'S FRANKLIN SQUARE LIBRARY: *Who is Sylvia?* by A. Price, 20 cents; *The Wreck of the Grosvenor*, by W. Clark Russell, 20 cents; *Shandon Bells*, by William Black, 20 cents; *Kit: A Memory*, by James Payn, 20 cents.

From the new edition of Messrs. Geo. P. Rowell & Co.'s *American Newspaper Directory*, which is now in press, it appears that the newspapers and periodicals of all kinds issued in the United States and Territories now reach the imposing total of 11,196. This is an increase of 585 in twelve months. Taking the States one by one, the newspaper growth in some is very considerable. The present total in New York State, for instance, is 1,399—a gain of 80 in the past year. The increase in Pennsylvania is 48, the existing number being 943. Nebraska's total grew from 175 to 201, and Illinois's from 890 to 904. A year ago Massachusetts had 420 papers; now the number is 438. In Texas the new papers outnumbered the suspensions by 8, and Ohio now has 738 papers instead of 692. The most remarkable change has occurred in the Territories, in which the daily papers have grown from 43 to 63, and the weeklies from 169 to 243—Dakota being the chief area of activity. The number of monthlies throughout the country grew from 976 to 1,034, while the dailies leaped from 906 to 1,062. The figures given above are exclusive of Canada, which possesses a total of 606. It is interesting to note that the newly-settled regions of the Canadian North-west are productive of newspapers as well as of wheat, for the number of journals issued in Manitoba was nearly doubled during the year.

The late Sydney Lanier had prepared and delivered, a short time before his death, a series of lectures on "The English Novel, and the Principle of its Development," a part of his regular course on English Literature, addressed to the students of the Johns Hopkins University. The papers have a peculiar value in that they are the last literary work accomplished by Mr. Lanier; they were left complete, and only the slightest textual revision was necessary for final printing in book form. Messrs. Charles Scribner's Sons have the volume in press.

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ORGAN OF THE

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No. 5

THE MODOC SCHOOL.

CHAPTER I.

MARK GOODWIN'S WILL.

“AND the remainder of my property, consisting of one hundred and twenty thousand dollars (\$120,000) in U. S. Bonds, deposited in the safe of the Pacificton Bank, I desire the cashier of the Pacificton Bank to pay out as follows: To my nephew, Glen Goodwin, the sum of five thousand dollars (\$5,000) per month, beginning January 1st, 1880, and so continuing until the whole sum, principal and interest, shall be paid to said Glen Goodwin; provided, that Glen Goodwin shall, in return for the above bequest, conduct and teach a school on his place in Cañada Grande y Agua Caliente, in the following manner:

“He shall hire my wife's niece, May Harvey, as assistant teacher, and shall pay her as wages the sum of two thousand dollars (\$2,000) per month. He shall employ his aunt, Jane Goodwin, as housekeeper, and pay her two hundred dollars (\$200) per month, for two years. He shall employ my uncle, Samuel Green Loveland, as man-of-all-work, and shall pay him two hundred dollars (\$200) per month, for two years.

“During the months of November and December, 1879, he shall get from different parts of Pacific County not less than ten nor more than twelve pupils, who shall be over eight years old and less than twelve years old, and who have never attended a public school. He and his

three assistants before named shall, on the 1st day of January, 1880, take these children, and shall feed, clothe, and provide for their bodily, mental, and moral wants to the best of their several and united abilities for two years. During this time the children shall not be allowed to return home or be removed from the school, and Glen Goodwin shall so contract with the parents or guardians of the pupils he may receive. The children shall be well taught in the branches studied in our public schools, and shall also be taught the elements of one or more useful trades or occupations. I do give my nephew and niece this money in this way, in order that they may be aroused from the unhealthy, ignoble indolence into which they have fallen, and be made to see there are nobler aims and uses of life than to waste time and talent over dress and frivolous amusements. I give this money to you, my dear relatives, in return for honest, faithful work to be done as well as you know how, and as well as you can learn how to do it; and I request and command you to begin now, and make yourselves fitted for your work by faithful study and observation; and it was for this purpose that I directed the sum of \$5,000 to be paid to you immediately, in cash, so that you might visit institutions of learning, and study how they may best be conducted. May you do a noble and lasting good work with the means I have provided for you.

(Signed)

“MARK GOODWIN.”

Thus read the latter part of Mark Goodwin's will, written throughout by himself, and signed January 3rd, 1879. He had been thrown from a wagon and hurt internally, and the doctors told him he could not live for more than three days. He immediately wrote his will, and had it properly witnessed; and he directed that his nephew and his wife's niece should be sent for. By the time they arrived from San Francisco Mark Goodwin no longer recognized any one. He had put the will into a sealed envelope, and had given it to the cashier of the Pacificton Bank, with directions to keep it until he should die. But doctors do not always know how long a lease of life a man may have, and it was not until the middle of November that death came to the semi-unconscious sufferer.

The will was then opened and read, and for the first time the heirs were made aware of the terms of their bequests.

The whole county became excited, and the queer provisions of the will were discussed over and over again. “The Pacific Breaker,” the weekly paper which Pacificton supported, had column after column of comment and advice.

Offers of pupils, not only from different parts of Pacific County, but from other counties, poured in upon Glen Goodwin. Children of thirteen and fourteen lost two years of their age, and children of six and seven gained as much as the others lost.

Applications for positions as assistant teachers and housekeepers flooded the mail; and offers to do all the work, at most reasonable sums, and let the heirs take their case, were most abundant. It was now plainly

too late to comply with Mark Goodwin's request that they should visit other institutions and see how they were conducted.

It was a queer will, but wills are often that, and Mark Goodwin had been a queer man in some respects.

The will had been a surprise to Glen Goodwin, and to May Harvey as well. Neither had much property, and both had expensive, luxurious tastes. Brought up in idleness, taught no useful trade or profession, Glen Goodwin was now, at the age of twenty-five, lazy in mind and body, given to selfish indulgences, and fast becoming *blasé* and enervated.

Yet there was much good under this crust of indolence and selfishness. He scorned a lie, or a mean action of any kind. He was intelligent and well read, and quick to adapt himself to circumstances. He looked down upon the other sex with indulgent compassion, and had frequently vowed that he would always remain a bachelor. May Harvey had been brought up in much the same way; and though she had been less spoiled (for she was only twenty years old), yet she had never known the ennobling influence of steady, useful work. Beautiful and accomplished, fascinating in manner and intelligent in conversation, she had been courted and petted, praised and deferred to, until her naturally good traits had been covered with a thick, disfiguring crust of society varnish. She had come at Mark Goodwin's request, but the sick-room was no place of pleasure, and she had soon returned to the city. She met Glen Goodwin at his uncle's for the first time, and the few days they spent in the house did not give either a very high opinion of the other. We are not apt to admire our own faults when we see them in others. When the will was read and the conditions made known, both were surprised and annoyed. Neither felt able to refuse to accept the terms of the bequest. Both had known the inconveniences of poverty, and did not wish to throw away such an income, even if there were such disagreeable features connected with it. Both could plainly see that it was their uncle's intention to throw them together in such a way that they would eventually become man and wife. Both firmly resolved that this should not be.

"Who wants a wife thrown at his head in that manner?" grumbled Glen Goodwin.

"As if I couldn't find a husband twice as rich and agreeable as he!" commented May Harvey.

"Will you accept the position offered you?" he had asked, and she had replied, "I am not able to refuse it."

The months of November and December waked Glen Goodwin up. He never before had been given work and responsibility like this. The settlement of his uncle's estate, which devolved upon him as executor, the fitting up he had to give his own place in the Cañada Grande, and the selection of pupils to put into his school, made him more than busy. He began to like to feel busy. It gave him importance in his own eyes and in the eyes of others.

He sought for pupils from the poverty-stricken families of the county,

hunting out those who lived in lonely cañons and out-of-the-way places, where school-houses were not within a reasonable distance and the children were growing up in ignorance.

By the middle of December he had made arrangements with the parents of twelve children of proper age, and they had promised to have the children by the first of the coming January at the Cañada Grande.

The house had been refitted and added to, so that it was nearly ready for the new inmates.

Aunt Jane Goodwin, a spinster of uncertain age (she claimed to be just forty, and nobody for a number of years had disputed this claim), had already gone to her quarters; and she, with Uncle Sam Loveland, were getting things in order in the house and about the place. Aunt Jane had taken Nora Saxon, the teacher of Cañada Grande district school, to board with her until the others should arrive, for she said, primly, that it was hardly proper for a maiden lady of her age to keep house for a widower like Uncle Sam, even if he was old enough to be her father.

"People will talk, you know, my dear," she had said to Nora, "and even if Uncle Sam is a sort of relation, you know, for his niece married my half-brother, you know."

"Now that Uncle Sam has fallen heir to such a lot of money, and you are an heiress too, I expect you will just be hunted down by the marriageable young men and women," replied Nora, gayly.

"You don't think it," said Aunt Jane, in an alarm which, it must be confessed, was a sort of pleasant alarm. "I have always avoided the other sex, you know; and you put me in a tremble by hinting such a thing."

"Of course they will," said Nora, mischievously. "I'll wager you a pair of gloves some old bachelor will carry you off inside of a year; and as for Uncle Sam, I've half made up my mind to set my cap for him myself."

The latter part of Nora's speech was not so pleasant to Aunt Jane as the other, and she mentally resolved to keep a close watch over the "young chit," as she sometimes named Nora, and protect Uncle Sam from all fortune-hunters.

"Why was this called the 'Modoc' place?" inquired Nora, after a pause; "I heard Uncle Sam call it that the other day."

"You know this piece was between two grants," replied Aunt Jane, "and both of them wanted this cañon, you know. And they had quarrels and fights and lawsuits, you know, until they couldn't rest. At last Mark Goodwin bought it of both parties, you know, for about half of what it was worth, and had the deed made out to Glen Goodwin, you know. But Glen would never live here, and he always rented it out, though he got the tenants, you know, to put out this orchard and vineyard. You know, just about that time the Modoc Indians were fighting up in the northern part of the State, you know, and the people here began to call this the Modoc place, because there was so much fighting here, you know."

"Yes, *I know* now," said Nora, who sometimes could hardly avoid laughing at Aunt Jane's constant assertions of "you know," whether the one spoken to did know or not. Nora Saxon was one of those bright, sparkling California girls we often see, who impress you as having a great fund of good humor, wit, and jollity; who possess a fair education, and know how to use what they do know; who are daring almost to imprudence; saucy to impudence at times, but kind-hearted and companionable in spite of some defects. She had been teaching about three years, and was now twenty-one, and felt herself able to cope with man and the world, and to defy both if need be.

A born tease, with an abundant sense of humor, she had promised herself rare sport in watching the experiment these people were about to make, and resolved she would try to keep her present boarding-place if she could, even after they had all moved in, for the house had ample room, and good boarding-places are rare in country districts.

So, when Glen Goodwin came out on a flying visit to see to some changes, Nora put on her prettiest dress and most bewitching airs, and pleaded so charmingly to be permitted to stay, and not be driven to some place where they had pork and beans for breakfast, dinner, and supper, that Glen thought it would be a jolly addition to the family if such a pretty school-ma'am could be there all the time.

"Besides, being an experienced teacher, I can help you with my advice if you get into trouble," she had said laughingly; and so he said he would be happy to have her stay as long as she wished to remain.

HINTS ON SCHOOL DECLAMATIONS.

MANY teachers are undecided as to the best course to pursue in respect to declamations in school. They are confident they should require their pupils to commit selections to memory and repeat them before the class, but after witnessing the results a few times they become quite discouraged. They take considerable pains to see that the extracts are well learned, and even take time for a few private rehearsals, and they hope that when Master James makes his bow he will really do something meritorious. But alas for human expectations! The frightened boy blunders and stammers; he forgets and picks his clothes; and finally, in confusion and mortification, he shuffles back to his seat, completely disheartened. The teacher, too, is almost ready to give up in despair, when one of her brightest boys makes such sorry work of declamation.

Were the case of Master James an imaginary or even an isolated one, the subject would not be fraught with so many difficulties. But since similar cases have occurred repeatedly in nearly every school, it has come to be considered by many that the time and effort given to this exercise are simply wasted.

Consequently, we hear many teachers say they do not require their pupils to speak pieces. They have given the subject a fair trial, and nothing has ever come of it but vexation and failure.

Let us consider for a moment. Is it desirable that a boy or girl should be able to stand before the class and repeat a brief selection of prose or poetry? We do not speak of the benefits to be derived from declaiming, or attempting to declaim, those outbursts of deep emotion which are found in our school readers or speakers, but we refer more particularly to the expression of a few simple sentences of a narrative or descriptive character. We answer, unhesitatingly, it is, and for the following reasons:

If this practice is followed through six or eight years of school life, a pupil will have memorized a large number of the choicest bits of prose and poetry sprinkled so profusely throughout our English and American literature. These extracts, being thoroughly memorized and repeatedly spoken, cannot fail in having a marked influence in the development of character. This point cannot be made too emphatic; we consider that it alone is a sufficient reason why teachers should insist upon every pupil in the school committing to memory brief extracts, and repeating them before the class. In process of time the sentiments they contain become so thoroughly familiar to all, that they are an ever-present monitor for good. Lofty and ennobling thoughts are expressed in choice and attractive language, and in time the mind will find great delight in repeating them verbally or in thought. A quiet and enduring influence will thus surround the child during its most impressionable age, producing results which will show themselves throughout its entire life in a steady and well-ordered character. Is it possible for a youth to repeat those stirring lines from Scott, commencing

“Breathes there the man with soul so dead,”

without being more patriotic for it? Will not the constant companionship of such sentiments tend directly to the development of a true manhood and a worthy citizenship? Familiarity with poems on the affections will make better brothers and sisters, and all the domestic relations will be influenced by their subtle power. Every phase of the good and true has been voiced repeatedly by pens of power and eloquence, and the more completely the every-day life of the child can be surrounded by the benign influences thus created, the more of dutiful regard can the parent expect, and the more of worthy service the State, from that child's future life. Taking this view of the subject under consideration, it is one which cannot be put aside as a matter of little moment, but it rises at once to the dignity and importance of a duty, whose faithful discharge tends directly to the happiness and well-being of the individual and the family, and the conservation of the State.

Another valuable result to be obtained from school declamations is this: After a time the pupil is enabled to stand before a class and talk, although a hundred piercing eyes are fastened upon him. There is a natural diffidence in all children which shrinks from this ordeal, but perseverance and judicious aid from the teacher will overcome the difficulty. We are aware that it is said by some that school children are inclined to be too forward and bold; that the

teacher should endeavor to repress, rather than encourage, their assurance; but we claim that there is a wide difference between reckless audacity and that presence of mind which a child must possess in order that he may talk and appear at ease before his classmates. The one is born of ignorance and impudence, the other of a recognition of inborn power and modesty. A naturally diffident child will not become bold by frequently declaiming in the school-room; he simply becomes conscious of an awakening to the possession of a power which has no kinship whatever with brazen-facedness. There are men in every community who regret above all things that they are unable to do this seemingly simple thing. Few, however great their advantages may be, can ever acquire the ability to sway a multitude by the power of their eloquence, but every boy can be trained to stand before a class and express a few simple facts in a straightforward manner. The presence of mind begotten by constantly reciting choice gems of prose or poetry aids the pupil in making a good recitation in the school-room, and it gives him self-possession and ease of manner wherever he may be when addressed by strangers.

Other reasons might be given for the practice of the exercise under consideration, but we think the two mentioned are sufficient to convince any one of its value. It will be seen that if followed up persistently for several years an influence is thrown about the life of the child which will remain long after childish thoughts and ways give place to those more becoming maturer years.

We feel assured that in most cases where the effort has ended in disappointment and failure the reason may be found in the fact that the teacher was not satisfied with fair results, or that she did not set about the work in a proper way. There is much truth in the oft-repeated remark, that teachers are inclined to expect too much of their pupils. Facts and statements of quite an abstruse character are presented to the mind of the teacher in minute detail so many times, that not only is the element of difficulty entirely removed, but the fact that there ever was one is entirely forgotten. The successful teacher is a duality. Her mind will be, if she so wills, like that of the child, limited in its range, dimmed by surrounding mists, and weak in execution; or far-seeing, clear, and strong. Being thus alternately one and the other, she knows precisely how to expend her efforts in order that the child may be brought out into the full light of day.

The natural diffidence of children may be overcome by requiring each member of the class or school to commit to memory a favorite stanza of poetry, or a brief paragraph of prose. Some day when the teacher feels that a good impression can be made, let her introduce the subject of books and literature, and incidentally refer to some authors who have exerted a marked influence upon the thought and culture of the age. She should be prepared to recite a stanza from this author, a line or two from that one, and a few incisive sentences from a third, as examples of the point she is endeavoring to make. Then she should ask each member of the class to learn a brief stanza of poetry, or two or three sentences of prose, which express a beautiful or valuable thought, and be prepared to repeat them to the class within a given time. She should follow up the request by giving such aid and encouragement as may

be necessary, and at the appointed time call for a report. This should be given by each pupil standing at his desk. The teacher will, of course, add such words of commendation as the occasion may offer, or by a few judicious questions bring out the reasons for thinking the selections chosen are worthy. After all have been heard, a vote may be taken by the class as to which is best.

This exercise should not be held once and then discontinued, but it should be repeated at least weekly, or better still daily, throughout the term. If properly conducted the interest will not flag, but, on the contrary, increase with each repetition. The older pupils should be required to state briefly why they make the selections they do, and the younger ones be encouraged to do the same as soon as possible. This will develop a habit of reflective thought which must be of great educational value.

It will be seen at once that this exercise is equally well adapted to graded and ungraded schools. All who can read may take a part and receive a benefit. After the class is well organized the results may be utilized in several ways: For instance, some day the class in arithmetic is discouraged; suddenly call a halt and ask Robert to repeat his stanza containing words of encouragement and cheer, and Fanny hers, containing a promise, and so on until half a dozen have recited. A little oil will thus be thrown on the machinery, and the friction removed. Perhaps John has been a disobedient boy, and after a proper presentation of the case, call for several recitations which have a bearing upon obedience and order. Thus, by practical applications, the sentiments contained in the extracts memorized from time to time become imbued with living reality, and a healthful influence brought to bear upon the character of the child. I suggest that the class thus formed be called the class in character-building.

In time these extracts may be lengthened, and if the proper attention be given to the recitations, it will come to pass that a pupil will show no more hesitation in repeating a brief poem or a paragraph in prose than he does in giving any ordinary recitation. Constant practice will beget ease of manner so essential in any public appearance, and it will also tend to wear away that timidity so natural to many children.

The influence thus exerted will extend through the entire work of the school. Pupils thus taught will acquire a facility of expression which will enable them to tell what they know; that is, they will have words for their thoughts. Furthermore, the good thus done will not end with a child's school days. It will extend throughout his life, gradually begetting a dignity of bearing and a readiness of expression which will aid largely in extending and strengthening his influence with those among whom his lot is cast.

J. B. McCHESNEY.

But the secret of force in writing lies not so much in the pedigree of nouns and adjectives and verbs, as in having something that you believe in to say, and making the parts of speech vividly conscious of it.—*Lowell*.

COMPOUND NUMBERS IN OUR SCHOOLS.

IN TWO PAPERS.—NO. TWO.

MEASURES OF CAPACITY.

APPARATUS.—A set of liquid measures—gallon, quart, pint, and gill.
A set of dry measures—half-bushel, peck, and quart.

One graduated glass measure holding sixteen fluid ounces, and another which contains one ounce divided into drachms.

Exercises.—Children easily comprehend these measures when they see them. They should form the table by filling the larger measures with water measured in the smaller ones, and they should compare in the same way the dry quart with the liquid quart. They should compare the glass measure with the tin ones, and should notice that 16 of the druggists' ounces equal a liquid pint. If convenient, it is well to have them measure a few ordinary vessels, such as tin cans and pails, with the larger measures, and small bottles with the glass ones. Before measuring, each child should guess at the capacity of the vessel to be measured, in order to train his judgment. No one has a practical knowledge of weights and measures unless he can approximate the weight of an article or the capacity of a vessel by merely inspecting it. The tables should be memorized after the practical work, and it is best to join druggists' measure with the ordinary liquid measure, and recite the whole as one table, from minims to gallons.

MEASURES OF LENGTH, SURFACE, AND SOLIDITY.

Apparatus.—A carpenter's rule divided to sixteenths of an inch, and a tape-line measuring 50 feet.

Twenty-four cubical blocks an inch on each edge; one block 6 inches long, 4 inches wide, and 3 inches thick; one block 8 by 4 by 4; a three-inch cube; and a cubical box one foot on each outside edge—all of which should be painted black and lined with white, so as to show the number of cubic inches in each solid, and the number of square inches on each face.

Exercises.—First. Teach the scholars to measure accurately with the foot-rule, and to express various short distances in inches and fractions of the inch. Require them to measure the length and width of several books and slates, and to write the measurements. Require the height of each member of the class to be measured.

Second. The class should measure a yard and a rod with the tape-line, after which the length, width, and height of the school-room should be given in feet. If the school grounds are inclosed, it is a good plan to require their dimensions in yards or rods. It is hardly practicable to measure greater distances; but the children should estimate the distances they travel in going to school, giving results in miles, fractions of miles, or rods.

Third. When beginning square measure, the child must first clearly distinguish the square inch from the lineal inch. One way of effecting this is to

draw squares on paper, require the scholars to measure the sides with the rule, and then to tell them that a square whose side is one inch is a square inch. They should be questioned in many different ways about the three kinds of inches, as nothing is more common among the children of our schools than a confusion of ideas on these points. As soon as they know a square inch when they see it, or rather measure it, they should draw rectangles of various shapes and sizes, divide these into square inches, and from the measurements and results deduce the rule for finding the area of a rectangle when the sides are given.

They should then draw a square foot, divide it into square inches, count them, and calculate the area from the sides. That there are 144 square inches in a square foot should never be told the child as an isolated fact. He should measure various rectangular forms, such as the sides of boxes, books, slates, etc., and calculate the areas, the work being proved sometimes by actual division into square inches.

The same method should be pursued in developing the idea of the square yard. It should be drawn and divided, and the area of the floor, sides, and ends of the room calculated in square feet and yards. The square rod should be measured on the school grounds, the corners staked, and the area in square feet and yards calculated. Acres and the number of acres in a square mile are not easily comprehended by young children, but they may receive some benefit from being told that 160 square rods in any form are called an acre, and from being required to find rectangles of various shapes whose areas equal an acre. When scholars understand the work, it is useful to have them find the side of an acre in a square form. In one of my own schools I have required boys to measure the sides and stake the corners of an acre in three different rectangular shapes, but in many places this is not practicable. The number of acres in a square mile should be calculated from the side in rods, and not told nor learned as an isolated fact.

Fourth. Cubic measure should begin with the cubic inch, which should be seen and handled, and distinguished from the other two kinds. Next let the children pile the blocks into rectangular solids of different sizes and shapes, observe the dimensions and lineal inches, and the solidity in cubic inches, and finally deduce the rule for finding the contents of a parallelepipedon.

Then show the blocks divided into cubic inches, and let them count and calculate the contents of each. The box representing the cubic foot should be used in the same way, and the child should explain in his own way the differences between lineal feet, square feet, and cubic feet. The cubic yard may be illustrated with the three-inch cube, and the cord and cord-foot, which should never be made a part of the table, with the eight-inch block mentioned in the list of apparatus. Finish the work by requiring the contents of small boxes in cubic inches, and of larger ones in cubic feet.

TIME, CIRCULAR MEASURE, ETC.

No apparatus is necessary in teaching time except the school-room clock, which should be examined by every child till he can tell the time of day with

ease and accuracy. The scholars should notice the lapses of time till they have a good idea of various short periods, such as two, five, ten, and twenty seconds, and of the various divisions of the hour. They should observe and tell the length of each intermission of the school work, and the total length of time passed in the school-room every day. They should understand the artificial division of the day into two parts, and should know how the morning hours are distinguished from those of the afternoon. The number of days in each month should be thoroughly learned, and each child should know the date of his birth, and be able to tell his exact age at any time by reckoning the time elapsed.

It is very difficult for young children to comprehend the true nature of circular measure, and perhaps a thorough comprehension ought not to be expected until their reasoning faculties are well developed. They readily understand the division of a circle into parts, but circular measure is not used to compare circles, but to compare angles which are not easily understood. If a small angle with long sides and a large angle with short ones be drawn for the average child, he will invariably decide that the former is the greater angle. It is difficult for him to see that degrees are used to express the difference of direction between lines, but he may receive a glimmering of the truth at an early age by seeing many angles drawn, by distinguishing the large ones from the small ones, and by measuring them with a protractor.

Surveyors' long and square measure should be explained and learned as practically as the ordinary tables of long and square measure, but I do not think it wise to confuse beginners with too many methods of measuring at once. These tables should be learned only by advanced scholars, not because they are difficult, but because they are not so important to the average child as some of the other work.

The table of English money is usually among the first taught in our schools, but it is comparatively unimportant, and almost valueless to children, unless they understand the worth of English coins compared with our own. Most children have a fair knowledge of the names, appearance, and relative values of our gold and silver coins, but they are all very deficient in that quickness of perception and readiness of computation which are acquired only by practice, and which are highly developed in people whose business necessitates the daily handling and exchanging of numerous large or small sums of money. The most practical work that the child can do in studying United States money is to handle the coins and use them; but as we are not able to give our children much money to use, and as it would be in some respects very unwise to do so if we were able, we should advance their education as much as possible by doing a better thing, which is to furnish them with a good imitation of the genuine article. It would certainly be unwise to place gold and silver coins in the school-room, as most people would expect the teacher to run away with them if the children did not; but I see no reason why the gold coins might not be roughly imitated in bronze, and the silver ones in nickel, and a quantity placed in every school-room. Practice in handling these, in computing the cost of articles sold by the yard and pound, in counting out the requisite

sum for payment, and in "making change," would be of far greater benefit to the child than the work he does at present in the school-room. We need less ciphering and more observing, thinking, and judging in our schools, not only in Compound Numbers, but in many other parts of arithmetic.

GEO. A. RICHARDSON.

Garden Valley, El Dorado County.

THE PROBLEM.

PRETTY well up towards sky-light and garret,
 With none but herself to use or to share it,
 The school-ma'am sat in her room all alone ;
 The night was far spent, yet her work
 was not ended,
 A rather tough job remained to be done,
 Though she felt that her strength was
 well-nigh expended.
 Some books, full of figures, lay open before
 her,
 A headachy chaos, both many and mazy,
 A muddle that bothered her poor little
 head,
 Of data to sift out the prompt from the
 lazy.
 But at 'em she went, though she whimpered
 and sighed ;
 Then added, subtracted, divided, and—
 groaned ;
 Mixed means and extremes, got square root
 and—cried ;
 Took fractional ratios, reduced 'em and—
 moaned ;
 Then adding again, she divided and scored,
 Cube-rooted, and worked up the tens and
 the digits,
 Till fretted—dead-reckoned—her fate she
 deplored,
 And seemed like to die of the figures and
 fidgets.
 She summed up the absent, and worked up
 the late,
 She reckoned precisely the clean and the
 dirty ;
 She averaged Jimmy and Sally and Kate,
 And brought out percentage at 30.
 "Arithmetic, perfect," she made 5 per cent.,
 The "perfect in reading" but 2 ;

Then to get at the spelling her brain she
 bent,
 And she worried "till all was blue."
 For it looked like $\frac{1}{2}$ of $\frac{3}{8}$ of 15,
 Diminished by 9 plus a $\frac{1}{4}$;
 And it bothered her head and vexed her
 spleen,
 And dimmed her blue eyes with salt water.
 So giving all up, she sprang for relief
 To a very different quarter ;
 Sending backward her thoughts and fond
 belief
 Towards those she dreamed had once
 sought her ;
 In hopes of devising some possible plan
 Of working out, some way, an *average* man'
 And changing the school for a bridal ;
 And so of achieving deliverance
 From tasks she deemed useless and idle.
 "Ah, yes, what's the chance—the blessed
 chance ?"
 But the "answer" gave chance for but 2
 Among the school-ma'ams 90+4,
 While all that remained must still "aver-
 age" do,
 And like Poe's raven, sigh, "Nevermore."
 "Dear me ! what's it for ?" she exclaimed,
 in a pet,
 "Why not leave us poor bodies some
 sway ?
 Let us use some small judgment, not keep
 us in fret,
 Tied up in this Procrustean way."
 Ah ! poor little noodle ! the powers that
 reign
 Are so wise, so precise, and so keen,
 That they know the *sole* way "perfection"
 to gain
 Is to make each school-ma'am a *machine*.

H. K. OLIVER.

EXERCISE SONGS FOR THE SCHOOL-ROOM.*

THE increasing demand for calisthenic songs and exercises has made prominent the fact that no satisfactory book for American public schools has heretofore been prepared. Encouraged by the phenomenal sales of *The School-Room Budget* and *School-Room Chorus*, the publisher has for two years collected and compared all the new books of physical exercises for schools published in this country and in England, and has selected a series of those which seemed best adapted to interest and develop the boys and girls of our public schools. These will be published from month to month in *The School Bulletin*, and finally gathered in book form into what will be known as *Exercise Songs for the School-room*. All the songs and exercises have been personally tested, and will be formed within the capacity of the youngest children, yet suited to interest the oldest.

TO THE TEACHER.

These exercises have been so arranged and adapted that the majority of them may be performed in ordinary school-desks, the children standing side

THE SEA-BIRD'S SONG.

Words by JAMES SMITH.

Music arr. from VERDI, by C. W. B.

1. Soar-ing in glee where the wa-ters wave, And the wild winds wail and sigh;
2. Rev-el-ing o'er the hil-lows vast With hearts that nev-er fail;

Bound-ing a-far o'er the crest-ed wave That rolls to the storm-y sky.
Reefed sails may rend be-neath the blast, And the har-dy crew turn pale.

Swift as the flash of a sun-light beam, On with a wild-ly joy-ous scream,—
Fear-less of dan-ger on we roam,— O-ver our bound-less o-cean home,—

Thun-der may roar, and light-ning gleam, Free as the winds we fly.
Beat-ing with joy the surg-ing foam, Brav-ing the roar-ing gale.

* From the *School Bulletin*, C. W. Bardeen, Syracuse, N. Y.

by side. They are suitable either for boys or girls, separately or together, and are calculated to develop the various muscles of the body, and generally to promote good order and discipline.

The teacher is recommended to study carefully the directions given with each exercise, and to practice the different movements before attempting to teach the children. It is not intended that the somewhat prolix directions be read out to the children; they are best learned from the example of the teacher, who will give only such instruction as may be deemed absolutely necessary.

For example, in teaching Exercise 1, the teacher, after seeing all his pupils standing in *Position*, would proceed somewhat as follows:

Teacher.—When I say *Ready*, place the palms of your hands in front of your thighs in this manner (performing the movement).

He now calls *Ready*, when the children instantly imitate his movements, he looking round to see that all are in correct position, and promptly checking any shuffling or moving about.

Teacher.—When I say *One*, raise your arms in front of your body thus (executing the movement).

He now calls *One*, when his action must be promptly imitated, he correcting where necessary.

Teacher.—When I say *Two*, raise your arms upwards in this way (performing the movement).

He now calls *Two*, when his action must be promptly imitated as before, corrections being made where necessary.

Teacher.—When I say *Three*, bring your hands back again to the front of the body (as at *One*), thus—

He now calls *Three*, when the movement must be again promptly performed, correcting again when necessary.

Teacher.—When I say *Four*, return the hands to the thighs (as at *Ready*) with some degree of force, thus—

He now calls *Four*, when the movement must be smartly executed.

POSITION.

The children must first be taught to stand in a correct posture. The military position of *Attention* has been considered best for this purpose, and will be used throughout these exercises under the name *Position*. Between the exercises, the children may be allowed to stand easily on the word *Ease* being given, the return to *Position* being made promptly on the word *Attention*.

At the word *Attention*, the legs must be placed closely together, the heels in a line and touching each other, and the toes slightly outwards. The head must be held erect, with the eyes looking straight in the front. The shoulders to be held well back, and the chest well forward, both square to the front. The arms to hang straight down by the side of the body, with the fingers fully extended, but touching each other, and the palms of the hands touching the sides of the thighs.

At the word *Ease*, the above somewhat stiff position may be relaxed: the child may be allowed to move the head and limbs, but not to move the feet or to throw the arms about. The recall to *Position* is the word *Attention* or *Position*.

NOTE.—All words of command must be given smartly.

EXERCISE I.—ARMS.

Ready.—At the word *Ready*, bring the hands in front of the thighs, the palms touching the thighs, fingers fully extended, but touching each other.

One.—At the word *One*, raise the arms outward (without bending the elbows or moving the fingers) in front of the body until in a line with the shoulders, the palms being downwards.

Two.—At the word *Two*, raise the arms upwards (elbows still unbent) until parallel with the sides of the head.

Three.—At the word *Three*, return the arms (still unbent) to the front of the body, as at *One*.

Four.—At the word *Four*, bring the arms in front of the body (as at *Ready*) with some degree of force.

Repeat these *four* movements until *sixteen* has been mentally counted *four* times; then, without losing time, count an extra *one* for a prompt return to *Position*.

NOTE.—The arms must be unbent, must be moved parallel to each other, and must be kept equi-distant. The head and body should be kept as steady as possible, with eyes fixed on the teacher, who will be in front of his pupils.

OBSERVE.—*Sixteen* must be counted *four* times, with an extra *one* for return to *Position*. It will be seen that the music contains *sixteen* bars of *four* beats each, with an extra *one* for return to *Position*.

EFFECT.—This exercise causes a stretching of the back and the neck, and a pulling backwards of the shoulders by bringing the muscles of the back and the back of the neck into action. The forearms, hands, and fingers being also kept on the stretch, their *extensors* (stretching muscles) are contracted during the movement. But the muscles that are put into the strongest action are those that raise the arms. This exercise tends to widen the chest and increase its mobility.

EXERCISE II.—BODY.

Ready.—At the word *Ready*, raise both arms forward in front of the body till in line with the shoulders, the palms of the hands facing each other, but not touching.

One.—At *One*, move the body to the right (or left) till the chest and extended arms are at right angles to the feet.

Two.—At *Two*, return to position as at *Ready*.

Three.—At *Three*, move the body in the opposite direction.

Four.—At *Four*, return to position as at *Ready*.

Continue these movements of the body till *sixteen* has been counted *four* times, counting an extra *one* for a silent return to *Position*.

NOTE.—In this exercise be careful to keep the arms fully extended and

parallel to each other throughout, and the feet immovable, this being an exercise for the upper portion of the body only. It will be necessary that the children stand at least *two* feet apart during the movements. It may, however, be performed with ordinary standing room, provided the body be only twisted so as to bring the extended arms against the body of the child next the performer.

EXERCISE III.—BODY.

Same as above, except that the hands are placed on the hips.

EXERCISE IV.—BODY.

Same as above, except that the hands are clasped behind the neck.

EFFECT.—A great number of the muscles of the trunk (having such a position relatively to each other as to make them co-operate in turning) are brought into action by this movement, which, though effective, requires comparatively little exertion. It acts in a stimulating manner on the spine, on the organs of the abdomen, and also on respiration, this more especially in Exercise IV. The pressure of the abdominal muscles on the intestines, alternating from one side to the other, effects in them a kind of kneading motion which stimulates their function. The turnings also cause an alternate shortening and extension of the great blood vessels, and promote circulation.

The School Bulletin.

EDITORIAL DEPARTMENT.

THE STATE SUPERINTENDENT AND THE SCHOOL JOURNAL.

THUS runs the tale, according to the San Francisco "Chronicle" of May 2nd :

"A SCHOOL JOURNAL FIGHT."

"SACRAMENTO, May 1.—The State Board of Education met to-day, Stoneman and Welcker being present, and Professor Allen absent. The Board revoked the action which it took early in March, appointing THE PACIFIC SCHOOL JOURNAL as the official State organ. The JOURNAL is edited by Albert Lyser, and has been the State organ for years. At that time he agreed to accept a reduction to \$1 for each school district per year, the price having been \$1.40. Thomas E. Flynn sought the contract at \$1.50, but failed to secure the appointment. Flynn protested against the award of the contract to Lyser, as no bids had been called for. Since then Lyser has been using the columns of his SCHOOL JOURNAL to denounce the various applicants for the contract, and Flynn in particular. In the last number of the JOURNAL, Lyser, by innuendo, reflected seriously on the motives of Professor Welcker, who had supported Flynn's claims. Welcker called the meeting of yesterday, and directed the attention of Governor Stoneman to the offensive articles. The Governor at once introduced a resolution depriving Lyser of the official patronage. The resolution was carried, and Flynn's journal was designated as the official organ of the Board at the price allowed by statute—\$1.50 a year."

No intelligent reader will believe otherwise than that the action of the Superintendent of Public Instruction was a mere pretext. The editorial in our April number was a statement of facts—of a portion of the facts only. If these facts reflect on the conduct of the Superintendent, it is very unfortunate—for the Super-

intendent. The article referred to needs neither justification nor defense. To have omitted mention of the March meeting of the State Board would have been trifling with the great body of educators who supported the JOURNAL, unjust to the tax-payers whose money pays for the support of the school system, and in evident collusion with those who might wish to retard or suppress the publication of important facts.

Had Superintendent Welcker complied with the spirit of the fundamental law of the State,* with the usual custom of the State Board of Education,† and with the promise of his deputy, and given a complete record of the proceedings of the Board‡ in our April issue, our comments might not have proved so unpalatable.

The following letter from the State Superintendent seemed to us sufficient reason for seeking the widest publicity for the whole matter. We sought then, and still seek, that every newspaper in the State, every man, woman, and child, should know the minutest details of the proceedings to the publication of which the State Superintendent was apparently so averse.

SACRAMENTO, April 3rd, 1883.

ALBERT LYSER, ESQ., 806 Market Street, San Francisco.

Sir—I have just read your postal card of yesterday to the Deputy Superintendent of Public Instruction, on which you say, "We are waiting for the remainder of the report of the proceedings of the State Board." By this language I suppose you desire to publish the same. This I cannot consent to; I do not desire to have the proceedings published at this time; nor, were it otherwise, do I think it would be right to do so, under all the circumstances of the case, without a resolution of the board to that effect.

Although the office is crowded with important business, I will give directions to have the transcript of the record finished so far as pertains to the matter of the official organ, and sent to you for your individual use, and you will receive it on that understanding only.

Respectfully your obedient servant,

WM. T. WELCKER,

Supt. Public Instruction.

Perhaps the Superintendent can put some other construction on his letter than the foregoing. How will he explain the following?

Of the three publications submitted for designation, how is it that from the first he favored the one least known—the one *that in March had not come within the letter of the law*, and that has not yet come within its spirit; the one whose owner made no pretense of the character of his enterprise; § the one whose

* We refer to the prohibition of star-chamber proceedings of official boards.

† It has been customary to print in full all proceedings of the State Board of Education; excepting, of course, all private investigations attending revocations of diplomas.

‡ It will be seen in the Official Department for April that the proceedings break off abruptly. It is not stated whether the Board adjourned then, or after transacting other business. After receiving the record as it appears, the editor of the JOURNAL went to the State Office at Sacramento. The Superintendent was absent. The deputy was asked for the full record for the Official Department. "Is it customary to publish it?" he asked. We responded, "Yes." He then promised to copy the proceedings "during the latter part of the week, and send them." No report came, and after "the latter part of the week" we wrote a postal card, asking for it. A few days after we received the letter published above from the State Superintendent.

§ Here is Mr. Flynn's circular to the State Board:

To the Honorable the State Board of Education:

I herewith submit to your notice sample copies of the "California Teacher," and respectfully solicit for it the official patronage of your Board. Having been occupied

strongest and best support was the "bosses," who distribute the patronage of his political faction.

But every evidence shows that the Superintendent's action was predetermined from the instant of his induction into office.

The recommendations from prominent teachers, from the leading Superintendents of the State, and from Boards of Education weighed with him as "trifles light as air."

He set up his opinion against that of hundreds, and apparently never questioned the wisdom of his conclusion. Entering on his administration with protestations of non-partisanship, he stands, to-day, the first State Superintendent of California who has introduced into the schools the vile and pernicious booty-cry—"To the victors belong the spoils."

This is by no means our last word on the subject. And the Superintendent will find, moreover, that this subject was not finally settled when the State Board adjourned on May 1st.

TO DISTRICT TRUSTEES.

AFTER June the JOURNAL will no longer come to your district under the State designation. You have the right, however, to subscribe for it, and place it in your libraries with the other books and periodicals.

It has been a constant visitor to you for nearly seven years. We hope it has done such good service in that time that you feel inclined to continue it. No efforts shall be spared to make it more interesting and valuable than it has ever been before.

Subscribe for it now. Let the district clerk send us the usual requisition on the County Superintendent, for two dollars, and the JOURNAL will be sent you.

with my duties as a legislative correspondent while the number of the "California Teacher" before you was in preparation, I was prevented from giving it that amount of attention requisite to the production of a first-class magazine. I have, therefore, to ask your indulgence in the criticism of its literary merits, and have submitted it chiefly to give some idea of the size and mechanical excellence of the magazine which I shall publish if successful in my application for the patronage of your Honorable Board. I think that with the advantages which the official sanction of the State Board of Education gives, a first-class magazine may be published with profit to the proprietor, as well as credit to the Department. In this connection I desire to say that the price allowed by law (\$1.50) is not large for such a magazine as I have presented. The existing official journal, I believe, receives \$1.40 a year, but it is possible to publish a journal for \$1.00 a year and make more money than I shall if you award me the contract at the full price. My desire is to print a magazine that shall command respectful notice. In the copies of the "California Teacher" before you I have attempted to show the typographical merits of the publication which should represent the School Department. For proofs of my capacity to make the literary qualities as good as the mechanical peculiarities, I point to my record as a journalist of many years' experience, and refer you to the petitions of the writers among whom I have labored, and the public men with whom I have associated.

Respectfully yours,

THOMAS E. FLYNN.

Does this not furnish clear proof that our animadversions on his periodical were, if anything, not severe enough? Does this communication indicate the existence of a *bona fide* "monthly educational journal," in compliance with subdivision 13 of section 1521 of the Political Code? Yet the Superintendent of Public Instruction supported the one number accompanying this "cheeky" circular as strenuously as if it were really something more than the "man of straw" the whole community knew it to be.

SETTLED OR NOT SETTLED?

TRAVEL and the general reading of newspapers are said to exercise a liberalizing influence on the mind. They tend to break up that tendency to become "set" in habits of thought and action, incident to all stay-at-homes. But it sometimes happens that the more we read or travel the more unsettled we become on matters of fact or opinion. Is there any point, we ask, on which men agree? Have we a right to consider anything as settled, be it in art or science, in theology or education? Is aught certain but uncertainty? Let us apply these reflections to our educational system.

Is it settled that education benefits the men and women who are educated? Does it prevent crime? Has the State a right to educate? Has it a right to assume the function of educator *in loco parentis*? Just how much education does it take to prevent crime? How far, then, should the State go in the education of its youth? Is the higher education, like gold watches and champagne, a luxury reserved for the accidentals, while the usuals are obliged to content themselves with "the three R's"? Are we over-educating the masses? Since when, and how do they show their over-education? If a little education can prevent some crime, will more education not result in less crime?

Here are ten questions which we imagined were finally solved. But it appears we erred. The daily newspapers still light up the dark recesses of the popular understanding with the tremendous brilliancy of new solutions, just as their progenitors, the sophists, did in the days when Socrates and Aristotle and Plato wrote treatises on education.

It is tiresome to meet, almost daily, these old foes with new faces. Can it be that they are right and we wrong? If so, then civilization is wrong, and the ignorance of the past is the bliss of true righteousness.

One thing we believe educators and friends of universal education should demand, and that is, that the boundaries may be clearly defined. Let us know what is still debatable in education, and what settled. Then we may address ourselves to the discussion of living issues, and from a multitude of counsel wisdom will come forth.

TO THE TEACHERS OF CALIFORNIA.

TEACHERS will see that, after June, the JOURNAL is no longer the official organ. That is, it will no longer be furnished by State designation to every district.

Now, teachers, is the time for undivided and active support.

The hasty, partisan action of the State Board of Education will do no lasting harm to the JOURNAL; on the contrary, with your help, it will prove a real benefit.

Let this announcement be responded to by hundreds of individual subscriptions from every section of the State. Do more: see that your district also subscribes. Let there be no delay. The JOURNAL is entering on a war—a war of educators against politicians. On our side are arrayed the friends of the public school system, the superintendents, directors, teachers, without regard to politics; on the other hand are those who have no sympathy with the public

schools—the politicians, the third-rate city newspaper men, who never fail to find fault with and attack the schools.

In the struggle for patronage, this element always has the advantage. The first battle of the campaign has been won by them; we are willing they shall regard it as for us a Bull Run defeat, for we know that with the cordial sympathy of the hosts of good teachers in California, we shall eventually terminate the struggle with an Appomattox success.

So send us lists of new subscribers from city and country.

And don't forget: have your District trustees place a copy in each and every library.

EDITORIAL CORRESPONDENCE FROM COUNTY INSTITUTES.

THE editor of the JOURNAL has been in attendance on a number of County Institutes this spring. A full record of their proceedings has been written up, and will appear in our June issue. The meetings of this year have been characterized by even more than ordinary interest and enthusiasm.

EDITORIAL PARAGRAPHS.

WITH every recurrence of the Institute season, some one is sure to ask, "How can they be made most useful?" We suggest that they be made to resemble normal classes as closely as possible. There should be little theorizing but much exemplification of practice. The teachers should come to learn; should learn of one another, of the conductor, of their superintendent, of the school patrons, and the community. The sessions should continue not less than a week; a regular program, including the main topics taught in the district school, should be prepared a month in advance; there should be few essays and fewer discussions; members of the legislature and prominent citizens should be induced to address the teachers, and all discussions should be on matters they present; lastly, teachers should have note-books, and use them.

THE salary question, like Banquo's ghost, "will not down." This is natural enough, considering that wages, like all other values, are shifting. But unfortunately, their present tendency is to shift the wrong way.

After very encouraging progress in this State, matters have come to a standstill, especially in the payment of adequate salaries to teachers. California started fairly in this respect, and for many years the upward tendency was pronounced, and productive of the best results. Good teaching material flocked here from all parts of the world, and our example reacted on the older and more conservative States, until, after emulating our example, they bid fair to surpass us.

We mean to discuss this question at length in future numbers of the JOURNAL. It should be agitated until the ruling sentiment in the community determines that we must secure for our schools only the best teaching material, at prices commensurate with their excellence.

THE "Caminetti Bill," passed by the last legislature, will be a valuable means of bringing the University within reach of every ambitious boy and girl in the State. If we do not mistake, the bill means simply this: Boards of Trustees may secure competent teachers, and permit instruction, in addition to the ordinary grammar course, in algebra through quadratics; five or six books in geometry, and thorough drill in English, as prescribed by the Bulletin of the University printed in our April number. The work here required is but a trifling addition to the present grammar school course, and admits, on a successful examination, to the College of Science.

We understand that the faculty are disposed to facilitate admission to the University; and that they believe the requirements, though almost identical with those for admission for Yale College and sufficiently high, will enable many students to enter.

The attention of the educational public is directed to the bill and to the University Bulletin, as published in the Official Department for April.

THE lack of thorough supervision is a great defect in our school management. It is useless to point out the fact that every county has a superintendent, and that in some counties even a deputy is added to aid in the necessary work.

There are two kinds of supervision: one is where the superintendent or principal goes into a school-room, sits down, listens for half an hour, perhaps asks a question or two, and then retires.

The other is where a day is spent in the school-room; the methods of the teacher are observed; notes made, not of errors only, but of excellence as well; and an hour or two spent with the teacher in commendation of conscientious work and good methods, in kindly criticism of mistakes, and in the discussion of such means as will lead to increased interest and general improvement.

THE County Government Bill passed at the last session of the legislature provides for the payment of reasonably adequate salaries to county superintendents. Unfortunately, the law cannot be made to affect the salaries of the present incumbents. It is to be hoped that Boards of Supervisors will be generous in the matter of traveling expenses, etc., so that every superintendent who wishes to do efficient work may be enabled to do so.

THE establishment of a system of inspection for the San Francisco schools is an eminently wise measure. The only difficulty is in the amount of inspection practicable with one inspector. The Board of Education, in selecting Miss Laura T. Fowler for the position, made the best possible selection. Miss Fowler has long made primary work a specialty; she has never been a routine teacher, is advanced in methods and thought, and has a keen realization of the importance of training the eye and ear, the moral nature, and the imagination, as well as the memory and reasoning faculties.

Miss Fowler is the author of a little book on oral instruction, which was at one time used in our schools, and which should never have been displaced.

So it is not in quality of inspection that the San Francisco schools suffer, but rather in not having more of the same kind.

NOTHING more clearly shows the pitiful subserviency of the public press than their silence on the proposed amendment to Article IX. of the Constitution, known as the "Perry Bill." There is absolutely not one redeeming feature about this iniquitous measure. The unanimity with which it passed both houses of the legislature was proof of abject cowardice, for we know that many voted for the measure who really desired its defeat.

But the difficulty appears to be that legislators have lost confidence in the intelligence of the people, as the latter, have lost confidence in the integrity of the legislators.

Our representatives evidently believe that the people can be deluded into the belief that a State printing office, run in the interests of a political faction, with a constant pressure to place the henchmen of the political "bosses," can furnish school books, respectable in quality, at a reasonable cost. The State printing office now has no accurate idea what the real cost of school books is. If that office ever learns, the people will perhaps realize that they have exchanged King Log for a very voracious King Stork.

The full text of the "Perry Bill" will be given next month, and commented on in that and succeeding issues.

SINCE May 1st, the date of the action of the State Board, we have received at this office eighty-nine new subscribers to the JOURNAL. A good beginning. Let the work go on. We hope every teacher will consider himself an agent for the JOURNAL. We ask now that the teacher, after subscribing for himself, will induce his board of trustees to subscribe for the district library.

This work has already begun. In this way we shall circumvent those enemies of our schools who think they can use the money of the whole State to advance the interests of one political faction.

WE want a regular agent for the JOURNAL in every county on the Pacific Coast. Very liberal terms will be granted energetic teachers who will act as regular correspondents and solicit subscriptions.

OFFICIAL DEPARTMENT.

SUPERINTENDENT WILLIAM T. WELCKER, EDITOR.

DEAR SIR—In response to your question as to how many census children will entitle a district to two teachers under the first subdivision of section 1858, my reply is that ninety is the lowest number of children that will entitle the district to two teachers.

DEAR SIR—Section 1693 provides that a school month is composed of twenty school-days, or four weeks of five school-days each. If a teacher has taught twenty school-days, or four weeks of five days each, he or she is entitled to be paid a month's salary.

DEAR SIR—Section 841 of the Political Code provides that no person is capable of holding a civil office who, at the time of appointment, is not twenty-one years of age.

DEAR SIR—If at the time that you entered into your contract with the district to teach, there was money to the credit of the district equal to or greater in amount than that amount which you were to have been paid for your services under the terms of the contract, the district is still liable to you, no matter how the money may have been afterwards expended.

If, for example, under the contract you were to have taught three months at ninety dollars per month, and there was to the credit of the district for the year during which you taught two hundred and seventy dollars, the district is still liable to you for that sum if your services were faithfully performed. The fact that the Trustees may have used the money to purchase two hundred and seventy dollars' worth of desks, or that they have used the whole or any portion of the money for any purpose whatever, will not relieve them from liability to you. See section 1623 Political Code.

DEAR SIR—My opinion is that when a district lapses it falls back into the district from which it was taken. The children in the lapsed district will therefore be counted by the census marshal as a part of the children of the district into which it falls.

DEAR SIR—I know of no provision of law which will prevent a member of the County Board of Education from acting as deputy Superintendent of Schools, unless he receives over seventy-five dollars per month as a compensation for his services as a member of the Board.

Section 843 of the Political Code provides that no county officer must be appointed to act as the deputy of another when the pay of the office which he holds equals or exceeds the sum of seventy-five dollars a month.

In regard to your other questions, I have this to say: One of the rules of law in regard to the construction of a statute is that if the body of the statute is ambiguous, the title of the act may be referred to for the purpose of clearing away the ambiguity. The title cannot be referred to, however, for the purpose of controlling the body of the statute.

This being the case, and there being nothing in the body of the new amendment to section 1663 which provides for the manner in which schools shall be graded, we must refer to some other portion of the Political Code to determine this matter. Section 1543 will therefore govern in this case as in others.

DEAR SIR—Section 1771 of the Political Code has the following provision: "County Boards of Education [Examination] have power . . . to *prescribe* and enforce rules for the examination of teachers, . . . to *prescribe a standard of proficiency*," etc. Section 1772 provides that certificates must be granted to persons only who *have* passed a *satisfactory* examination in all the studies prescribed by the County Board of Education," etc. These provisions show that the Board is clothed with a certain degree of discretionary power—a power to act in accordance with the principles and dictates of their own reasons.

If they have this discretionary power, they will be able to say that it is unnecessary for the applicant to pass an examination in certain studies again in

which they have already been examined at a previous meeting of the Board, and in which they have obtained the required percentages. In other cases the Board will have the power to compel the applicant to again pass an examination in studies in which they have already been successful. Of course in such matters the Board must be governed by a sound discretion.

The applicant who had years previously passed a successful examination, who had not since been engaged in teaching, who had since given no study to the subjects, could not stand on the same footing with a person who had passed in those subjects at the last meeting of the Board with high credit. It is a principle of common law, statute law, common sense, and reason, that in the administration of law no useless thing is required to be done.

A meeting of the State Board of Education was held at Sacramento May 1st, 1883, at 10 A. M. The Board adjourned to 1 P. M., to await the arrival of Prof. Allen. The Board reassembled at 1 P. M. A telegram was read from Prof. Allen, saying he could not be present.

In accordance with an opinion of the Attorney-General's office, rendered in the time of E. S. Carr's administration, at the request of the State Board of Education, referred to on page 112 of the records thereof, to the effect that a bond given to the State Board of Education when not required by law is of no effect, a resolution was introduced by Governor Stoneman rescinding the resolution introduced by Prof. Allen at the last meeting of the Board requiring the editor of the official organ to give bonds.

The following resolution was next introduced by Governor Stoneman:

Whereas, the Superintendent of Public Instruction has called the attention of the Board to the fact that he notified Mr. Albert Lyser not to publish in the organ of the Department of Public Instruction the proceedings of the last meeting of the State Board of Education; and whereas, he, the said Lyser, did publish the same on page 144 of *THE PACIFIC SCHOOL JOURNAL*, the organ of the Department of Public Instruction, in an article wherein the said Lyser shows himself to be in strong antagonism to the Superintendent of Public Instruction; and whereas, the Superintendent of Public Instruction has requested the Board to relieve him from a journal in which such strong and evident antagonism is shown to the Department of Public Instruction—therefore, be it resolved that *THE PACIFIC SCHOOL JOURNAL*, Albert Lyser editor, shall cease to be the organ of the Department of Public Instruction on the 30th day of June, A. D. 1883. Resolved, that from and after the 30th day of July, 1883, the "*California Teacher*," published by T. E. Flynn & Co. of San Francisco, shall be the official organ of the Department of Public Instruction, and the same is hereby designated as such official organ, in pursuance of section 1521 of the Political Code. Carried.

Life Diplomas were granted to Rebecca E. Hubbell, Jos. M. Haskins, G. W. Wallace, Ida Seely, W. F. Clyborne, Althea Sprague, Cordelia Kirkland, Mary E. Pelham, C. H. Woods, Mary E. Tryon, Carrie E. Alden, Chas. C. Haislip, Elizabeth B. Purnell, and Sarah A. Brown.

Educational, to Morell Reynolds, Mary E. Crowley, Minna Simon, Kate Conklin, Agnes McNamara, Rebecca F. English, Grace Mathieson, Ida Hall, Ruliff S. Holway, Elva P. Roberts, Mary E. Bennett, Mary E. Apperson, Ella J. Farley, Lizzie Waterbury, Oscar J. Lynch, Georgia Smith, Alcinous A. Brown, Sue J. Henry, Benj. J. Ruddock, B. F. Hedden, Clare E. Jackson, L. B. Howard, Lucy B. Blackwood, E. J. Bonelli, and a duplicate to W. F. Lynch.

DEAR SIR—To knowingly pay an illegal debt under the circumstances set forth in your letter would be a criminal act, and I have never yet understood that there was any "equity" in the commission of a crime.

"Equity is the correction for that wherein the law, by reason of its universality, is deficient." It does not strike me that the law is deficient which says that no warrant shall be drawn in favor of a teacher who has not had a certificate, valid and in full force during the time for which the warrant is drawn.

Equity is equality. There is no equality that I can see in the payment of an illegal debt out of the funds of the State, by an officer elected to obey and carry out the laws of the State.

If there is equity in this matter, it exists in favor of the Bank people, and they can obtain that equity by applying for the same to a Court possessing equity jurisdiction. The rules of equity are to be administered by Courts, not by civil executive officers—see sec. 1, art. iii, Const. It is their duty not to administer equity, but to obey the law.

I write thus fully upon the subject for the reason that the term "equity," which appears in the letter accompanying yours, is used constantly by school officials, and while many of them use the term correctly, their example induces others to use the term who do not use it correctly. An idea seems to exist amongst some school officials that certain acts not provided for by law may be performed, if during their performance they be called by the name of equity. A number of letters have been received in which the question has been asked whether or not acts that were illegal might be committed because it was equity to perform them.

SCIENCE RECORD.

THIS RECORD is under the editorial charge of Prof. J. B. McCHESNEY, to whom all communications in reference thereto must be addressed.

AN excellent soap-bubble preparation is composed of oleate of soda and glycerine, and from it bubbles two feet in diameter and of exceeding brilliancy can be blown. Some of these have been kept forty-eight hours under glass.

DR. THOMAS TAYLOR, of Washington, has made some investigations, which convince him that the common house fly, aside from being an annoying pest, is possessed of the capacity of transmitting disease by carrying the germs from place to place.

THE MANUFACTURE OF BESSEMER STEEL.—Official statistics show that the production of Bessemer steel ingots in the United States last year was 1,606,450 tons, being an increase over 1881 of 10 per cent. The quantity of Bessemer steel rails produced in 1882 by the fourteen completed works was 1,334,348 tons, and an increase of 6 per cent. as compared with that of 1881. These figures do not cover rails made from imported steel blooms and open hearth steel rails.

THE COW-TREE.—Sir Joseph Hooker, in his report on Kew Gardens, gives a sketch of a most interesting botanical curiosity, the *Palo de vaca*, or cow-tree. This tree grows in forests at the foot of certain mountain ranges in Venezuela, and attains a height of one hundred feet, and frequently the trunk reaches to seventy feet without a branch. The remarkable characteristic of the tree is the milk which exudes from the trunk when an incision is made. The flavor is of sweet cream with a slightly balsamic taste, but it is very wholesome and nourishing, the composition being said to approach very near the

milk of the cow. From the fact that the milk is somewhat glutinous it would seem that the tree is of the caoutchouc order. Seeds which have been sent to Bombay and the colonies are said to be thriving well. It is noteworthy, as an example of the law of compensation traceable in nature generally, that this cow-tree seems originally to have been a native of a country where milk-giving animals were formerly totally unknown.

OVERTAXING THE BRAIN.—In a recent lecture on "Brain Health," at Edinburgh, Dr. J. Batty Tuke said that, as a matter of fact, it is not an easy thing to overtask the energies of the brain by work. It is not work, but worry, that kills the brain. But breakdown from overstrain did occasionally take place, and the first really important symptom was sleeplessness; when that set in there was cause for alarm. Loss of sleep was brought about thus: When the brain was being actively exercised, there was an increase of blood in its vessels—this was spoken of as "functional hypercemia." If they continued the exercise of the brain powers too long, there was a tendency for the blood to remain in too great quantity from the cells becoming exhausted and not being able to control the vessels. In sleep, the amount of blood was diminished, and sleep could not be procured if this functional hypercemia persisted. In the absence of sleep, the cells could not recover themselves, and their activity became impaired. Headache, loss of appetite, and general listlessness followed. As soon as a child or young person develops continuous headache, work should be discontinued at once.

A SOMEWHAT new and interesting field of inquiry has been opened up by M. Lanquer, namely, the composition of the human fat at different periods of life, and its relation to health. These investigations show that in newly born children the fat has a particularly firm consistence, constituting a peculiar tallow-like mass, with a melting point at 45°C . The fat of adults, however, separates at the ordinary temperature of a room into two layers; the upper layer is completely fluid, translucent, and of a yellowish color, solidifying only at temperatures under zero, $\text{C}.$, while the lower layer is a crystalline mass, having its melting point at 36°C . The fatty acids obtained from the fat of newly born children—after precipitation with hydrochloric acid—were found to melt at $51^{\circ}\text{C}.$, and those obtained from the fat of adults had a melting point of 36° . The former was found also to contain three times as much palmitic and stearic acid as the latter; the palmitic acid predominated over the stearic in each kind of fat, but much more in that of children than of adults, the proportion being in the former four to one, but in the latter nine to one.

SUN SPOTS AND MAGNETIC STORMS.—Professor Schuster, the English astronomer, in a recent lecture at Manchester, thus spoke of sun spots: "Sun spots are seldom seen at the poles and seldom near the equator, though sometimes seen at both. We are now after a long protracted absence of sun spots, rapidly approaching their maximum, which would probably be reached in a few months, when there would be more than during the next eleven years. They would then slowly decrease in number, until in five, or six, or seven years there would hardly be a sun spot seen for some months, and then they would begin to appear again, and eleven years hence they would probably be as numerous as now. These changes are not absolutely regular, the number of years having varied from eight and one-half to thirty, but they oscillate round the period of eleven years. The protuberances on the sun's surface occur in the same way. Magnetic storms took place much more frequently when there were many sun spots than when there were few, and the aurora borealis was very nearly related to them. For some years we had seen of the latter few, and there were few sun spots then, while now hardly a day passes without an aurora being observed somewhere, and this was always accompanied by magnetic storms. There was a striking and regular connection between them. When a sun spot broke out, it was very probable we should see an aurora, and were almost certain to have a magnetic storm. A few weeks ago there was a very big spot on the sun's surface, and auroras were seen all over England where the sky was clear. This connection between the sun and the earth was one of the greatest scientific mysteries of the age, and we were absolutely without any explanation of it."

THE PUPILS' CORNER.

THIS department, which will consist of new, and in many cases original, declamations, poems, dialogues, music, and games, suitable for Friday afternoon exercises, will be under the editorial charge of MRS. ALICE LYSER. Teachers who have matter for the department, or suggestions in regard to it, are solicited to send communications to her address at this office.

WHO IS THIS GIANT?

JACK the Giant-killer was a strange little man. He went about seeking giants to kill them. But there are some giants that he could not kill, for they cannot die. And I think it is better for people to tame giants and make them do some good in the world, than to try to put them out of the way because they let them do so much harm.

I know a great giant whose home is in every part of the world. He takes up more room than all the people, and covers more than half of the earth. We could not live without him as our servant, and we could not live with him as our master.

He once broke out of his prison, and flowed over men's heads, and under their feet, and round about them on every side. He filled the valleys and covered the mountains, and killed all the people in the world except eight men and women who knew he was coming. It took many months to get him back again into his prison, and even now he runs out sometimes and takes men's lives, and robs them.

But when he stays in his prison and minds his work, he is a good servant. He eats nothing. He asks for no wages. He needs no clothes. He never sleeps. He works night and day. He never stops to rest, for you cannot tire him.

One man builds a mill to grind his corn. He brings the giant and asks him to turn the great wheel that drives all the other wheels. He does more work than many horses, and when his work is done he goes on his way.

Another man has a great load to carry. Fifty horses could not move it. The man sets it down at the giant's feet, and he takes it on his great broad back and bears it away. He will carry the man and many of his servants on the top of the load, and by the help of another giant will bear them around the world.

Sometimes he is angry, and has a fight with another giant. But his anger never lasts long. He seldom stands still, for he loves to roam about and see the world. He lives in the sea, and in rivers, lakes, and clouds. He will turn wheels, and bear ships and boats, and do good work if we tame him and make him our servant. But if we let him have his own way, he will destroy us. Now, what is his name?—*Scholar's Companion*.

WE judge ourselves by what we feel capable of doing, while others judge us by what we have already done.

AN IMPROMPTU COMPOSITION.

ERNST DITTES, 14 years old.

Mr. London's Class, S. C. Gr. School.

AUTOBIOGRAPHY OF A SHOE.

MY DEAR FRIENDS—I know not when I was born, but I do know that I spent most of my time on the back of a cow. This cow had a great dislike to be milked, and showed her temper so emphatically that the man often retaliated by returning the kick, little thinking that he was hurting me instead of the cow. After a while she was sold and was taken to Butchertown, and there was slaughtered by a butcher. I was stripped from the cow and was sold to a tanner. This tanner put me in some horrible stuff which soon deprived me of all my hair, and left me as bare as a bald head. After undergoing some very trying ordeals, I at last became very tough and hardened, and had no feeling for anybody. I was then taken to a shoe-factory. In front of this factory was a sign on which were the words, "Only white men employed here," but when I got inside I saw nothing but long rows of Chinamen. I was made to be the soles of a pair of large brogans. Mr. Butterfield of the American Shoe-store soon bought the brogans of which I was the sole part. Mr. Butterfield only sold shoes made by white men, but somehow or other the League of Deliverance found out that I was there, and made things hot for Mr. Butterfield. After a while, however, a workingman bought me. The man's name was Pat, and Pat was a hod-carrier. People say that the soul is immortal, but my sole began to disappear as fast as a large cheese would before a pack of hungry mice. Pat had to walk around a great deal, and at last I got to be very thin—so thin, in fact, that I thought I had consumption. One day I was thrown into an ash-barrel, from which I was put into a cart and had a free ride to North Beach.

If any of my friends ever go there to see the monkeys or to go fishing, they will do me a great favor by digging me from the dirt and putting me some place where I can breathe more freely.

EXAMINATION QUESTIONS.

The following questions were used for the regular semi-annual examination of teachers in San Francisco.

GEOGRAPHY.

7 questions. Time, $1\frac{1}{4}$ hours. 10 credits each.

1. (a) Name the natural boundaries between Europe and Asia.

(b) Which are the two most important river-systems of South America?

2. Name five of the most important articles usually shipped from the North to the South by the Mississippi and its branches.

3. (a) Name two large tributaries of the Ohio.

(b) Distance in degrees from the North Pole to the Tropic of Capricorn.

4. Name an important sea-port town in each of the following countries: Austria, Italy, Germany, Spain, Holland.

5. What three motions has the sea, and what causes them?

6. Name three particulars in which mountains are of importance.

7. What is the most important ocean current known, and in what does its importance consist?

ARITHMETIC.

10 questions. Time, 2 hours. 8 credits each.

1. When it is 11 o'clock A. M. at a place 30° east of Greenwich, it is 3 h. 44 m. 20 sec. A. M. at Buffalo. What is the longitude of Buffalo.

2. A man bought a bill of goods amount-

ing \$5,650, being allowed 3 per cent. discount for cash; he borrows the money from the Bank of California for which he gives his note for three months at $1\frac{1}{4}$ per cent. per month discount. For what amount must he give his note to the bank?

3. How many square rods, yards, feet, and inches are there in 7-13 of an acre?

4. If by working 14 hours per day a man can plant half of a field in 9 days, in what time will he plant the remainder working 10 hours per day at the same rate?

5. A note for \$1,200 was dated May 17th, 1881. Interest, 8 per cent. Indorsed, Oct. 11th, 1881, \$25; July 17th, 1882, \$750. What will be due Dec. 14, 1882, U. S. Rule?

6. A man borrowed \$10,000 in Boston at 6 per cent., and loaned it in Wisconsin at 7 per cent., how much did he make in two years and $6\frac{3}{4}$ months?

7. At what rate per cent. must \$480 be on interest to amount to \$529.60 in 1 year, 3 months, and 15 days?

8. If a man sells cloth at \$7 per yard, and thereby gains 75 per cent., does he gain or lose if he sells the cloth at \$3.60 per yard, and what per cent.?

9. A certain field is 40 rods square, what must be the length of one of the equal sides of another field that shall contain only one-fourth as much area?

10. If a pipe $\frac{3}{4}$ of an inch in diameter fill a cistern in 2 hours, what should be the diameter of a pipe to fill it in 3 hours.

SPELLING, DEFINING, AND ANALYSIS.

9 questions. Time —.

70 credits.

Sycophant.	Acme.	Excrescence.
Supercilious.	Siphon.	Supersede.
Fuchsia.	Eccentric.	Acclimated.
Troglodyte.	Ellipsis.	Acquiesce.
Augean.	Syncope.	Glamour.
Camellia.	Sciatica.	Bituminous.
Guillotine.	Chateau.	Arenulous.
Chenille.	Uterate.	Jugular.
Stygian.	Manacle.	Facetious.
Trichina.	Apocryphal.	Argillaceous.

30 credits.

2. (a) Give five words whose meaning is determined by the accent. (b) Give rule for dropping final *e*. (c) Give rule for doubling the final consonant.

3. Define the following words: Vernacular, euphemism, pantheism, evanescent, transmutation.

4. Give the meaning of the following prefixes, and give an example of each: *en*, *juxta*, *en*, *retro*, *apo*.

5. Give the meaning of the following suffixes, and give an example of each: *el*, *le*, *ory*, *ern*, *ish*, *ics*.

6. Give the Latin roots of the following: profusion, recreation, discretion, cursory, offer.

7. Give the Greek roots of the following words: Geography, cosmopolitan, democracy, hexameter, autograph.

8. Give the derivation of the following words: Circean, cereals, dahlia, mercurial, laconic.

9. Give a synonym for each of the following: Equivocal, effrontery, fallacy, aversion, name.

SOME QUERIES.

1. It is said that Lake Itasca is two and one-half miles nearer the center of the earth than the Gulf of Mexico; why does the Mississippi flow away from the center of the earth?

2. A "storm-glass" is an air-tight tube, and it is generally supposed to contain alcohol and camphor; why do the particles of camphor sometimes arrange themselves in the form of small stars? Why do they sometimes have a feathery appearance? Why is there any movement in the tube, anyway?

3. Who can give a rule for making a magic square with an even number of squares?

4. I once saw a board heavily covered with frost; in the board were several knots; there was no frost on the knotty places, why?

5. A guesses a 12-foot board is 13 feet long; B guesses it is 11 feet long; which makes the better guess?

6. A field has the same number of feet around it as it has square yards in its area; what is its area?

7. A field has the same number of yards around it as it has square feet in its area; what is its area?

E. E. CAREY.

EDUCATIONAL INTELLIGENCE.

TRINITY COUNTY.—Educational interests in this county are progressing finely. The schools are for the most part in charge of experienced teachers, and for good work and interest in studies will compare favorably with other sections. On April 6th a class graduated from the Weaverville Grammar School for the first time in its history. The class numbered five, and obtained an average in the written examination of over 90 per cent. The exercises were held in the evening, and consisted of select readings and original essays by the class, interspersed with music, and followed by addresses from Superintendent H. R. Given, the principal, J. T. Carson, and others. There was a large attendance, and great interest was manifested. This result was due in great measure to the energy and ability of Professor J. T. Carson, who has lately come to this State after an experience of twenty-eight years in the graded schools of the East. He has placed the Weaverville schools in a high state of efficiency, and has earned the reputation of being one

of the ablest teachers ever in the county. The vacancy caused by his resignation in order to accept a lucrative position in Southern California will be filled with difficulty.

AMADOR COUNTY.—We hear excellent reports of improvement in the schools of this county. Supt. Chandler is doing not only effective work as principal of the Sutter Creek schools, but is directing the work of his entire jurisdiction.

ALAMEDA COUNTY.—Through the generosity of W. H. Jordan, the Oakland High School is to have an observatory with a fine nine-inch telescope.

There will be more than thirty graduates from the State University this year.

The Mills Professorship of Political and Social Science of the State University has not yet been filled.

Alameda City has a new superintendent in the person of Mr. J. D. Sullivan, in place of O. S. Ingham. Mr. Sullivan is a young man of spirit and energy, and will undoubtedly make a good superintendent.

NEWS RECORD.

Foreign and Domestic.

The French expedition to Tonquin is causing great excitement in China.

Trevelyan, Chief Secretary for Ireland, declares that an organized conspiracy exists in county Clare.

The Dominion Government has awarded the French Company \$40,000 a year for a monthly line between Havre and Montreal.

The appointment of Keim as Chief Civil Service Examiner has caused so much adverse comment that his name is likely to be withdrawn.

A representative of Hawaii says: As the Chinese go to the Sandwich Islands they are not considered desirable additions to the population.

General Diaz denies that his object in visiting the United States was to negotiate a

loan or to take steps looking to the ascendancy of the United States party in Mexico.

ITALY.—The fourth centennial of the birth of Raphael was celebrated in Rome, March 30, with much pomp. A bronze statue of the artist was unveiled.

Another terribly destructive cyclone is reported from Minden, La.

The French have been defeated in a battle with natives on the Congo.

Mrs. Harriet Beecher Stowe is building a church near Jacksonville, Fla.

The Iowa Prohibitionists call upon the Legislature to re-enact prohibitory laws.

Miss Francis Willard, the temperance advocate, is going to the Sandwich Islands.

The constitutionality of Kansas prohibition will be tested in the Federal Supreme Court, the national brewers' association paying bills. The case is that of a Selina

brewer named Megler, whose beer-factory was shut up by process of law and the point made is the old one that the State had no right to destroy the value of his property by making his business a crime.

Arkansas has doubled her population in the last ten years, and is ranked as the fourth cotton State in the Union.

Edward Jump, an eccentric caricaturist of Chicago, shot himself in that city.

The Hawaiian Minister at Washington says his Government has protested against the embarkation at Hongkong and other ports of Chinese intending to land in the Sandwich Islands.

The accounts from the localities in Mississippi devastated by the cyclones continue to reveal much cruel suffering and frightful losses. At Beauregard the people seem dazed with their misfortunes.

RUSSIA.—The Russian revolutionists have issued a proclamation, printed in red, warning all persons if they value their safety to keep aloof from the Czar during the coronation ceremonies. They say their plans are perfect and insure success.

CEYLON.—A Buddhist procession at Colombo, the capital of Ceylon, recently carried through the streets a cross surmounted by a monkey, which so incensed the Roman Catholic population that a riot resulted, which only vigorous efforts by the troops suppressed.

Peter Cooper, the well-known wealthy philanthropist, died at his home in New York on the 4th ult. of pneumonia. He was ninety-two years of age, and previous to the sharp illness which caused his death, had enjoyed remarkable health and vigor.

April 3, the centennial anniversary of the birth of Washington Irving was celebrated at Tarrytown, N. Y.

An investigation of the almshouse of Tewksbury, Mass., has been in progress for some time, bringing to light, if the reports of the newspapers can be believed, some of the most revolting instances of cruelty on record. Gov. Butler has therefore issued an order ousting the trustees of the institution and putting in control the State Board of Health.

On the 21st of April a tornado passed through Sac, Woodbury, and Mona counties, Iowa, causing great damage, particularly at Danbury and Dunlap, injuring many persons, some fatally, and destroying much property.

Far more serious was the cyclone of Sunday, April 22nd, which swept over the towns of Wesson and Beauregard, in Copai County, Miss., laying them waste and killing nine people at the former place, and thirty-three at the latter, besides wounding

nearly one hundred persons at the two places. The towns of Tellman and Lawrence were also visited and laid in ruins, and many people were killed. A great many structures were blown down at Eastman, Ga., two children killed, and other persons wounded.

Sunday's storm also struck Georgetown, Miss., where it blew down two churches while services were progressing, and killed and injured many persons. The town was laid in ruins. In Clay County alone the tornado killed fifty people, besides large numbers of stock, and the destruction of property cannot be estimated.

On Monday, April 23rd, a cyclone also effected great damage in Barnwell County, South Carolina, sweeping away the residences and cabins on eleven farms, and mowing down the timber in the Salt-hatchie swamps as if a force of lumbermen had been at work.

An eruption of Mount Etna has just occurred, accompanied by an earthquake, and causing a panic in the adjoining districts. Considerable damage was done to various buildings.

SPAIN.—Prince Louis Ferdinand of Bavaria and the Infanta Maria Della Paz were married in the Palace at Madrid April 2nd, with state ceremonies.

FRANCE.—It has been decided that the government can stop the salaries of all clergymen in that country, even those of bishops.

SWEDEN.—A proposal for the neutralization of Sweden has been rejected by the Riksdag of that country.

MADAGASCAR.—The Malagassy envoys have asked the protection of Germany against French aggression in Madagascar.

ASIA.—The Turks have been defeated by the Arab insurgents at Arba.

ITALY.—Trinity Episcopal Church was dedicated at Rome on Wednesday.

April 27th, Devine, a Fenian informer, detailed at Dublin the plottings of that party against Judge Lawson, Juror Field, and the police leaders, and stated that one of its members had been sentenced to death by the clique for not obeying orders in committing a murder. The evidence was presented at the trial of Debney and Kingston for conspiracy to murder.

Educational.

Secondary instructions in France is imparted in lycées and colleges. The State meets all the expenses of the lycées; the colleges are supported by the cities in which they are established, but have for several years been aided by the subsidies from the

State. The lycees are 90 in number, had 48,094 pupils in 1882, and were put down in the *Budget* for 6,180,000 francs, besides 1,500,000 francs for repairs and improvements. The colleges number 253, had 41,290 pupils, in 1882, and 3,128 professors, and received subsidies amounting to 2,500,000 francs (about \$475,000).

The *Journal Officiel* has recently published several notices forbidding the employment of children in certain industrial processes, such as the manufacture of salicylic acid, celluloid, and some of the preparations of sulphur, which are injurious, by reason of the vapors given off.

Prof. W. E. Coleman was sworn into the office of State Supt. of Missouri on the morning of Jan. 8th. Dr. R. D. Shannon left Jefferson City that evening for Louisiana, Mo., where he now has charge of the high school. Dr. Shannon was State Supt., and under his supervision the schools of Missouri have made wonderful advancement in efficiency, and the standard of teaching has been materially raised.

The W. C. T. U. of Vermont has placed in each of the three normal schools of that State a set of temperance books, comprising three bound volumes of essays: Alcohol and Hygiene; Our Wasted Resources; Alcohol, its Nature and Effects; Dialogues on Drink; Alcohol and Science; The Use and Abuse of Tobacco; Ten Lectures on Alcohol; The Temperance Lesson-book and the Temperance Manual.

A graduate of the Boston Cooking School is now teaching in Hampton Institute, Virginia, while another is in the Industrial School in Norfolk, which Mrs. Hemmingsway is establishing.

Mrs. Evans, of South Meriden, has given the College Museum of Wesleyan College the valuable cabinet of minerals belonging to her late husband, and has also founded the John Evans scholarship of two thousand dollars.

Mississippi has opened her State University to the girls as well as the boys of the State.

A schoolroom should have a high ceiling; contain from two hundred to three hundred cubic feet of air to each pupil; have one or more ventilators in the ceiling, or in the walls near the ceiling; have long, high windows arranged to slide upward from beneath and downward from above. All the children should be sent out at recess, if only for a short time, in order to have their clothing, saturated as it usually is by animal exhalations, exposed to the purifying influence of the open air, and doors and windows thrown open in order to completely change the air within. Stoves, chimneys, pipes, etc., should be carefully looked after, and any accident or defect promptly at-

tended to or immediately reported. Children convalescent from contagious diseases should be excluded from the school for weeks, or months, according to the recognized limit of contagiousness of the disease. It should not be forgotten that the school and the church are the two great centers for the communication of most contagious diseases; and that both are active in this way in direct proportion to the insufficiency of the ventilation.—*Popular Science Monthly*.

Girton College, the girls' college at Cambridge University, in England, is about to be enlarged, and the plans for the new buildings have been already drafted and submitted to the authorities. The applications for admission have recently been very much in excess of the accommodation at present afforded.

Westminster school, in England, can claim to have been the nursing mother of a greater number of men distinguished in law, divinity, war, and letters than in statesmanship. Cowper, Henley, Clarke, and Mansfield were all educated at Westminster; Trelawny, Atterbury, South, Barrow, and Prideaux passed their boyish days within the same precincts. Of the seven officers of the British Army, excepting those of the royal blood, who attained the rank of field marshal between 1810 and 1856, five were educated at Westminster—Henry Paget, Marquis of Anglesea; Thomas Grosvenor; John Byng, Lord Stafford; Stapleton Cotton, Lord Combermere; Fitzroy Somerset, Lord Raglan. In literature there are associated with Westminster the names of Ben Jonson, Crowley, George Herbert, John Locke; Vincent Bourne, the most accomplished Latinist of his day; Bonne Thornton, the translator of Plautus; Edward Gibbon; Cowper, the poet; Southey, and Horne Tooke.

Rachel L. Bodley, one of the school directors of Philadelphia, gave a "five o'clock tea" to the ninety-two lady teachers of her section and a number of ladies and gentlemen prominently identified with the cause of education in Philadelphia and vicinity.

In San Francisco, it is the teachers who give "tea" to the directors. We think the Philadelphia way preferable, and in better taste.

There are 300,000 teachers in the United States.

Iowa College, at Grinnel, is one of the kind of elastic and progressive institutions which even cyclones can't destroy. Although the buildings, apparatus, and everything material about the college were destroyed by the cyclone of June 17th, it is now under full headway, one new build-

ing completed, another nearly finished, another under way, fifteen professors and three hundred and four students. That's the kind of stuff Iowa colleges are made of.

Five millions of the people of the United States cannot read, and six and a quarter million cannot write.

New York State has 1,681,112 children of school age, of which number 1,041,089 attended school last year.

Prof. C. H. Hitchcock, of Dartmouth College, is to make a study of the volcanoes of the Sandwich Islands, from a scientific standpoint.

Prof. G. Stanley Hall delivered his last lecture on pedagogy in Wesleyan Hall, Boston, taking for his subject "Self-consciousness in Children." The establishing of more gymnasiums for the youth of both sexes was strongly advocated, as by muscular activity much of the injurious physical results of self-consciousness may be avoided. The prevalent system of crowding the mind of the scholar and college student with a mass of ideas for the special purpose of passing an examination was condemned as being hurtful, not only to the mind, but also to the body of the youth, and the changing of the time of holding the examinations to the winter months, when the mind is active, was favored, instead of having them in the spring, when the nervous system, in many instances, is practically prostrated.

Philadelphia has appropriated \$15,000 a year for a city superintendency of education.

A. H. Fetterholf has been elected president of Girard Coll. He was vice-president of it.

Seven prominent teachers have been elected to the State Legislature, and one to the New Jersey Legislature.

Johns Hopkins University has secured, through the liberality of prominent Germans at Baltimore, Dr. Bluntchjls's library, one of the best collections on international law in the world.

The once famous William and Mary College, at Williamsburg, Va., the *alma mater* of Jefferson, Marshall, Monroe, and Randolph, and among colleges second only to Harvard in age, had but a single student last year, and is now closed.

The principal of the female department of Liberia College, West Africa, is Miss Jennie E. Davis, who graduated at the Boston Girls' High School ten years ago.

The Massachusetts School Suffrage Association have re-elected Miss Abby W. May President.

B. G. Northrop has retired from the Secretaryship of the Connecticut State Board of Education, a position he has held for many years. Chas. D. Hine is his successor.

In Belgium a fund of 24,000 francs (\$4,500) is appropriated each year for the encouragement of study abroad. The amount is divided into twelve equal parts, and placed at the disposal of the doctors of law, medicine, natural science, physical science, mathematics, and pharmacy. The object is to enable the most promising students under these facilities to complete their studies in some foreign institution. The appropriation is continued to each recipient two years. He is obliged to make a report upon some subject of his specialty to the Minister of Public Instruction, and the payment of the last quarter of the allowance is contingent upon the fulfillment of this obligation.

Missouri's productive school fund is now about \$9,400,000—the second in the Union. Governor Crittenden speaks in the highest terms of the management of the State schools, and congratulates the people on the general interest taken in them.

Says the *London Academy*: "We have never read a more encouraging report than that just issued by President Gilman, of the Johns Hopkins University, Baltimore. Only next after teaching and study is the duty of publication. In this respect, Johns Hopkins may claim to be doing better work than any other institution in the world." It publishes regularly a *Journal of Mathematics*, a *Chemical Journal*, and a *Journal of Philology*.

Mrs. Mary B. Young has presented to the city of Fall River an entire block of land in the most eligible portion of the city, for a site upon which to erect, in memory of her deceased son, Bradford M. C. Durfee, a suitable high-school house. The land, building, and a trust-fund—the income of which is to be devoted to instruction in natural sciences—of \$50,000, making the total value of the proposed gift over \$400,000, is tendered the city on condition that the selection and continuation of teachers at the high-school and departments connected with it shall be subject to the approval of certain persons to be named by her in said deed of gift, and their successors. The proposition was accepted unanimously by both branches of the city council, and resolutions of thanks for the munificent gift were adopted.

In the school-house attached to the German Catholic Church of the Most Holy Redeemer, at New York, under the care of the Sisters of Notre Dame, fire under the stairway in the second story, on the afternoon of February 20th, caused a panic among the children in attendance, who rushed for the exits, causing the breaking of the balustrade, thus sending the surging mass to the floor below. The little ones were piled upon each other from four to five deep, and still others were pushed down by the frantic

crowd above. Eight were taken out dead, seven died after being rescued, and three others have since died of their injuries.

The department of superintendence of the National Educational Association met in Washington, D. C., Feb. 21st. The president, Dr. Calkins, stated the objects of the meeting, and went on to remark that the outlook for improved education was very good.

A report on industrial education in the Boston schools was read by Supt. Kimball, of Newton, Mass. Following this Dr. Warren, of the bureau of education, read Mr. Charles G. Leland's paper on industrial art. Dr. Harris read a very valuable paper on "The Educational Lessons of the Census." He was followed by Dr. Henry Randall Waite, of the census bureau, who spoke ably on the necessity of making all educational schemes conform to the general law of nature. Mr. Calkins then appointed Messrs. Newell, White, Pickett, Tappan, Butcher, Rickoff, Northrop, Lucky, Armstrong, Lovejoy, Harris, Painter, Dougherty, and Smart as a committee, with power to add to their numbers, to secure national aid for education. At the evening session Rev. Dr. Haygood, president of Emory College, Georgia, and agent of the Slater Fund, read a paper on "National Aid to Education."

Personal.

According to Commander Mouchez, who observed the transit of Venus on the island of St. Paul, the cats and rats there have ceased hostilities, and joined forces against the birds.

M. Desire Charnay has demonstrated that the number of consecutive rings on the section of a tree's stem does not furnish proof positive of its age.

Professor Felix Adler assures the society for Ethical Culture that "the bond that attracts man to woman always begins with admiration. As the Brooklyn bridge grew from its first wire, so love springs from admiration. Women acknowledge the difference, but not the inferiority, of their sex, by their admiration for masculine strength; and unless a man has some strength, mentally or physically, he can never attract any but silly misses."

The house in Washington lately bought by Mr. Bell, of the telephone, for about a hundred thousand dollars, was built by Lieutenant Brodhead, who married a niece of N. P. Willis. It has in it a miniature theater, with orchestral accommodations, and chairs for the audience.

In Professor Felix Adler's charity, on Forty-fifth Street and Broadway, New York, the poor children play at sculpturing, drawing patterns for wall-paper, singing and carpentering, besides learning mathematics

and geology—a Kindergarten which is a royal road to learning.

"It is impossible," said Dr. George M. Beard on his death-bed, "to record the thoughts of a dying man. I should like to do so, as it would be interesting to read the struggles I am going through."

George Darwin, son of the late Charles R. Darwin, the evolutionist, has been elected Professor of Astronomy and Experimental Philosophy in Cambridge University.

An hour is devoted to the Seniors of Amherst College every Monday, by President Seelye, in replying to queries on literary, political, and miscellaneous subjects.

Cigarette-smoking is thought to be hurtful by Dr. Mulhall, of the St. Louis Medical College, because the smoker inhales the smoke.

General.

During the year 1882, the most prominent names of the great dead are Henry W. Longfellow, poet (died March 24th), Dante Gabriel Rossetti, poet (April 11th), Charles Darwin, scientist (April 20th), Ralph Waldo Emerson, essayist (April 27th), General Giuseppe Garibaldi, the liberator of Italy (June 2nd), Russian General Skobelev (July 6th), Prof. John W. Draper (Nov. 20th), Thurlow Weed, the politician and journalist (Nov. 22nd), Archbishop Tait, of Canterbury, Primate of the English Church (Dec. 3rd), Leon Gambetta (Dec. 30th), Prof. Jevons, Dr. Tait, Anthony Trollope.

Nature, quoting from the *North China Herald*, says that the complete works of Confucius were printed in Chinese in the year of our era 973, and that about the same time rockets and the mariner's compass were invented. The early printing types of China were engraved blocks of wood; afterward types of copper and lead were invented, but they never became popular, and the use of engraved blocks again became common. Paper was originally made of bamboo, afterward of cotton; but finally a return was made to the original bamboo.

According to M. Montegny, the Belgium astronomer, stars scintillate more during auroras than at other times.

An Antarctic expedition to Cape Horn is being fitted out by the French Government. It will be furnished for eighteen months.

Sun-spot periodicity is the subject of a late memoir by M. Wolf, of Zurich, Switzerland. He has arrived at the following conclusions: 1. There is a 10-year period; 2. An 11½-year period; and, 3. A 12-year period, due to the action of Jupiter. Notwithstanding the great difference between the two periods the interval between a minimum and the next maximum outburst of sun-

spots is the same—4½ years. After 170 years the phenomena recur in the same order and with the same numerical values.

The *Scientific American* warns people against using ice taken from ponds containing impure water. Freezing does not kill the noxious germs so inimical to health.

Gouverneur Morris, United States Collector of Customs at Sitka, says that Alaska is likely to become the great gold-field of the world. Rich lodes have been found upon the mountain-sides, and yield remarkable profits to placer-diggers.

It has recently been asserted that paper is as serviceable for rails as for car-wheels. It is claimed to be superior to steel in that it is more durable, is not subject to the action of heat and cold, is lighter in weight, furnishes a better track for the locomotive drivers and is less expensive.

It has long been the belief that portions of Greenland are regularly sinking. Some recent observations confirm this belief. Between latitude 60° and 70° buildings have to be continually moved inland, or they get below the level of the sea. On the other hand there are evidences that the land is rising in Sweden and Norway. Buildings have to be continually removed so as to bring them down to the level of the sea.

The phenomenal child called Krac, now being exhibited at the Royal Aquarium, London, as the long-sought-for missing link between man and monkey, is pronounced by a writer in the *Academy* to be distinctly human, possessing the faculty of articulate speech, and endowed with an average share of intelligence. Her low forehead is covered with ink-black hair, with which also her whole body is overgrown, though the coating is not thick or long enough to conceal the dark olive-brown color of the skin. Her nose is short and nearly flat, her feet are prehensile, like an ape's, and her hands can bend back over the wrists. "Her beautiful round black eyes are very large, and perfectly horizontal."

The Women's Insurance and Accident Company of New York City is an organization that owes its existence to the fact that the old and prosperous insurance companies

discriminate very unfavorably against women. Mr. George W. Phillips, actuary of the Equitable Life-Insurance Company, having had his attention called to this statement, replied: "Women are bad risks. We take them, but we don't want them; though singular enough, when it comes to annuities, the women display a perverse habit of living on and on, so that from any point of view they are bad risks. A wife insured for the benefit of her husband is not liked as a risk."

Many of the nursery rhymes have a very curious history, but cannot always be fully traced. Some of them probably owe their origin to names distinguished in our literature; as Oliver Goldsmith, for instance, is believed in his earlier days to have written such compositions. Dr. E. F. Rimbault gives us the following particulars as to some well-known favorites: "Sing a Song of Sixpence" is as old as the sixteenth century. "Three Blind Mice" is found in a music-book dated 1609. "The Frog and the Mouse" was licensed in 1580. "Three Children Sliding on the Ice" dates from 1633. "London Bridge is Broken down" is of unfathomed antiquity. "Girls and Boys, Come out to Play" is certainly as old as the reign of Charles II.; as is also "Lucy Locket lost her Pocket," to the tune of which the American song of "Yankee Doodle" was written. "Pussy Cat, Pussy Cat, where have you been?" is of the age of Queen Bess. "Little Johnny Horner" is older than the seventeenth century. "The Old Woman Tossed in a Blanket" is of the reign of James II., to whom it is supposed to allude.

Several acts of great importance, passed during the last session of the British Parliament, became operative January 1. Of these none will have more far-reaching consequence than the Married Woman's Property Act. Under this act a married woman may acquire, hold, and dispose of real and personal property in the same manner as if she were a *femme sole*, without the intervention of trustees. The law is a direct recognition of the principle that legalized injustice to women is detrimental to society.

BOOK NOTICES.

THE LOWELL BIRTHDAY BOOK. Boston: Houghton, Mifflin & Co. San Francisco: A. L. Bancroft & Co. 1883. Price, \$1.

This is a companion volume to the Longfellow and Whittier Birthday books; and a collection of extracts from Lowell, ar-

anged one for each day in the year. These occupy each alternate page, while the opposite page is left blank for the insertion of such memoranda as the reader may desire—especially the date of the birth or death of distinguished persons, or the occurrence of great events. It is illustrated

with a likeness of the poet and twelve engravings. The entire series will be found very useful in the hands of the live teacher, who will use them as a means of teaching children some of the choicest poetry in our literature.

INDUSTRIAL EDUCATION IN THE PUBLIC SCHOOLS. By Prof. H. H. Straight. Boston: Ginn, Heath & Co. Price, 10 cents.

This is a little pamphlet worth reading by all teachers who are interested in the subject of industrial education—and every teacher should be.

THE DIADEM OF SCHOOL SONGS. By Wm. Tillinghast. Syracuse: C. W. Bardeen. Price, 50 cents.

This is a collection of songs for the school-room, the special merit of which seems to be a method whereby comparatively untrained teachers may do some teaching of music. It is worth the trial, and we hope teachers will make a fair experiment.

HOME GYMNASTICS. By T. J. Hartelius, M. D. Philadelphia: J. B. Lippincott & Co. San Francisco: J. A. Hoffman. Price, 60 cents.

This is a book on popular gymnastics from the pen of Dr. Hartelius, of Stockholm. It has been translated from the original Swedish, by permission of the author, by C. Lofving. Its object is to assist in the preservation of the health of young and old people of both sexes.

It seems an excellent book, and we believe it may be advantageously used in connection with Mason's Manual of Calisthenic Exercises, in daily school-room drill.

ON THE DESERT, with a Brief Review of Recent Events in the East. By H. M. Field, D. D. New York: Charles Scribner's Sons. San Francisco: A. L. Bancroft & Co. Price, \$1.50.

Dr. Field has here written for us the most charming book on the East it has ever been our fortune to read. His style is simple, without baldness, and he writes so as to gain our sympathy from the start. It is easy to see that he realizes that he treads on holy ground, and yet every foot he travels has some present, practical human interest.

We commend this book to teachers. They will find it an excellent work for

their own reading, and one which may profitably be placed on the shelves of the school library.

ENGLISH LITERATURE IN THE EIGHTEENTH CENTURY. By Thomas Sergeant Perry. New York: Harper & Bros. San Francisco: A. L. Bancroft & Co.

This book, as stated by the author in his preface, contains the substance of a course of lectures delivered at Harvard University. It is another indication of what may be termed the Renaissance in the study of English, which is marking the present decade. It is a book no student of our literature can afford to be without. He will get a clear but subtle analysis of the birth and growth of modern English literature, with the psychological laws of its development.

TIM AND TIP. New York: Harper & Bros. San Francisco: A. L. Bancroft & Co. Price, 60 cents.

This is a delightful story for boys, and girls will not fail to find it interesting also. It is a sort of companion story to "Ten Weeks in a Circus," and "Mr. Stubb's Brother." We hope this notice will introduce all these books to the intelligent teacher, who will see them placed in the school library. They belong there.

MENTAL SCIENCE AND METHODS OF MENTAL CULTURE. Designed for the use of normal schools, academies, and private students preparing to be teachers. By Edward Brooks, A. M., Ph. D. Normal Publishing Co., Lancaster, Penn. For sale by all booksellers. Price, \$1.50.

We believe that Dr. Brooks has in this book succeeded in supplying the educational demand for a suitable book on the science of the human mind. As far as our knowledge goes, it is *the* book for teachers and all who, on account of their relations with the young, should have a thorough comprehension of the mind. One reason why teaching has always been so much guesswork, is because the usual books on mental science are expressed in terms so far above the mental grasp of ordinary young men and women. The manner of arrangement of Bain and Hamilton, or even of Haven or Hickok, is so unattractive that few students have the courage to attempt the subject, or persevere to its acquisition. In

the work of Dr. Brooks before us the arrangement is simple, the style clear and rather attractive. A special characteristic, the "method of cultivating the different faculties," will commend it to every teacher. In fact, it is easy to see that this is no office-book, but that it has grown out of the needs of and is based on the actual practice of the school-room. It is a book every teacher should purchase and study.

DOCTOR ZAY. By Elizabeth Stuart Phelps. Boston: Houghton, Mifflin & Co. San Francisco: A. L. Bancroft & Co. Price, \$1.

This story was published in the *Atlantic Monthly*, and there attracted wide interest. It is the story of a female physician, who, of course, falls in love with one of her patients, and finally marries him. The character of Doctor Zay is drawn with great delicacy and power. She is not only a possible but we trust a very probable woman. Strong-minded yet womanly, a philosopher but no stoic, what she says and finally does strike the reader as perfectly natural and never incongruous.

The tale is healthy, and we can heartily recommend it for the reading of our young men and young women.

THE MODERN READERS, published by Sheldon & Co., New York.; SWINTON'S READERS, published by Ivison, Blake-man, Taylor & Co., New York.; and the CANADIAN READERS, published by W. J. Gage & Co., Toronto, Canada.

Here we have three new series of readers, Swinton's so recently from the press that they have not yet fairly made their bow before the educational public. There seems but little to choose between the "Modern" and the "Canadian" readers; candor compels us to admit that they are both good, but there are no points in either of special superiority. But the Swinton readers appear to us a series of a much higher type. By the exquisite beauty of their illustrations, their large, clear type, and general mechanical excellence, they make an immediately favorable impression upon the eye, and command a close scrutiny of their plan and the manner of its execution. We have given some time to our investigation, and propose in an early issue of the JOURNAL to discuss the various features of

this series which will, we feel assured, add to the already eminent reputation of Prof. William Swinton as an author of school literature.

JAMES NASMYTH. An autobiography. Edited by Samuel Smiles. New York: Harper & Brothers. San Francisco: A. L. Bancroft & Co. Price, \$1.50.

James Nasmyth was an Englishman, the inventor of the steam-hammer and many other useful mechanical inventions, and what we Americans would call "a self-made man."

In reading his autobiography we can see the eminent fitness of selecting the author of "Thrift," "Self-help," and "Character" as its editor. We have in it a delightful sermon—an inspiration to boys—buoying up the lowly, and pointing out that whatever man has done, that man may do.

Every one of these books of Smiles should be in the school library. They will teach our youth the nobility of labor, and the reward that surely follows honest effort.

A NEW POLITICAL ECONOMY. By John M. Gregory, LL., D., Ex-president Illinois Industrial University, etc. Cincinnati and New York: Van Antwerp, Bragg & Co. For sale by all booksellers.

Van Antwerp, Bragg & Co. have presented in admirable and fitting style this work by Dr. Gregory, a work undoubtedly destined to be the standard on this important subject in all American schools.

The author's recent appointment by President Arthur as a member of the Civil Service Commission denotes his standing as an American publicist; this book accounts for the high estimation in which he is held.

The author's manner of treatment of his subject is new and attractive. His presentation is as follows:

1. The clear recognition of the three great economic facts of Wants, Work, and Wealth, as the principal and constant factors of the industries, and as constituting, therefore, the field of Economic Science.

2. The recognition of man, and of the two great crystalizations of man into society and into States, as presenting three distinct fields of Economic Science, each having its own set of problems, and each its own species of quantities or factors, to be taken into account in the solution of those problems.

3. A new definition and description of Value, as made up of its three essential and ever-present factors, forming the triangle of Value, and evidenced by the clear explanation they afford of the various fluctuations of prices.

4. The new division and distribution of the discussion arising out of these new fundamental facts and definitions.

5. The aid rendered to the reader and student by the diagrams and synoptical views. These, though somewhat artificial, will, it is hoped, be found to serve as a map to the territory to be traversed, and helpful to a better understanding of the true relations of the parts and divisions.

We have received the following numbers of the FRANKLIN SQUARE LIBRARY during the past month. We know of quite a large number of teachers who take this library by the year, and in that way get seven or eight volumes of the choicest literature at what is comparatively a trifling expense.

The Hands of Justice, a novel, by F. W. Robinson, price, 20 cents; *Unspotted from the World*, a novel, by Mrs. G. W. Godfrey, price, 20 cents; *Letters and Memorials of Jane Welsh Carlyle*, prepared for publication by Thomas Carlyle, and edited by James A. Froude; *Mary Barton*, a tale of Manchester, by Mrs. Gaskell, price, 20 cents.

From C. W. Bardeen, Syracuse, New York, we have received another of this excellent *Dime Question Books*, to which there has already been reference in the JOURNAL. The latest now before us is on algebra. It is edited by A. P. Southwick. This whole series will be found very useful; and the small price will place it within the means of all.

THE TEACHERS' AND STUDENTS' LIBRARY contains the pith of *twenty-five volumes* in one. No live teacher who has ever examined the work will do without it. The book has received the most flattering indorsements from the highest educational authorities. It is simply indispensable to teachers. It is published by T. S. Denison of Chicago, in one large octavo volume. Price only \$3.

LITERARY NOTES.

The *Popular Science Monthly* for May contains many attractive papers. The most interesting are: The Remedies of Nature—Consumption, by Felix L. Oswald; Science and Conscience, by Professor Thomas Sergeant Perry; Physics in General Education, by Professor T. C. Mendenhall; How Much Animals Know, by F. A. Fernald; Position and Stroke in Swimming, by R. Lamb, C. E.; How the Ancient Forests Became Coal, by M. G. De Saporta; A Superstitious Dog, by Eugene N. S. Ringueberg; Gymnastics, by Alfred Worcester; Why are we Right-handed? by W. C. Cahall, M. D.; The Boundaries of Astronomy. 1. Is Gravitation Universal? by Robert S. Ball; On Brain Work and Hand Work, by R. M. N., and Sketch of Professor Richard Owen.

The *North American Review* for May contains nine articles. Senator John T. Morgan writes of Mexico; The Rev. William Kirkus makes a charge upon the papal system in The Disintegration of Romanism; Emerson and Carlyle is by Edwin P. Whipple; Professor Felix Adler offers A Secular View of Moral Training; Communism in America is by Professor Alexander Winchell. The other articles are, Affinities of Buddhism and Christianity, by the Rev. Dr. James Freeman Clarke; Woman as an Inventor, by Matilda Joslyn Gage; College Endowments, by Rossiter Johnson; and Extradition, by A. G. Sedgwick.

The *Century* announces some very interesting articles of a critical character. In the June number, Mr. James Herbert Morse will begin a discussion, in two parts, of The Native Element in American Fiction. John Burroughs will contribute his say upon Carlyle to an early number; and Henry James, Jr., has written several critical essays to follow his paper on Du Maurier and London Society. The subjects, so far as announced, are: The Correspondence of Carlyle and Emerson, for the June number, and studies of Alphonse Daudet and Anthony Trollope.

E. L. Kellogg & Co., New York City, have in press for issue May 1st, *Talks on Teaching*, by Francis W. Parker (Quincy). Probably no volume will attract the attention of teachers of this country so much as this. The interest created by Colonel Parker in the Quincy schools has been unparalleled. All through the country teachers are asking the question: "What are these New Ideas?" This volume answers the question. Price, \$1.

St. Nicholas for May is as delightful as ever. No better and fresher text-book for supplementary reader can possibly be placed in the district library. Among other articles, we note the following this month: Among the Poly-dancers, by Lucy Larcom; The Story of Robin Hood, by Maurice Thompson; Peggy's Trial, by Cora Linn Daniels; Twelfth Paper of Stories of Art and Artists; The Last of the Peterkins, by Lucretia P. Hale; Curious Items About Birds.

The *Overland Monthly* for May has been issued. It contains among other interesting papers: Saville: A Symposium and a Tragedy, by Noah Brooks;

Seeing the Truth, by Professor Sill; American Shipping, by Joseph Hutchinson; and another interesting chapter on the Discovery of the Potato in Arizona, by J. G. Lemmon, besides the usual current comments and book reviews.

The Harpers have resolved to encourage young American artists by the offer of an award of \$3,000 for the best original drawing to illustrate Alfred Domet's Christmas Hymn. The artists must not be over twenty-five years old, and the successful competitor will be expected to use the money for the prosecution of art study in one or more of the best American schools, including also a sojourn abroad of at least six months for the study of the old masters. The drawing will be published in *Harper's Magazine* for December, 1883. Mr. R. Swain Gifford, Mr. F. D. Millet, and Mr. Charles Parsons will act as judges of the competition. The drawings are to be sent to the Harpers not later than August 1st, 1883. It is an admirable project on the part of the publishers, and worthy of unqualified praise.

In the *May Century* we have: Father Junipero and his work—A Sketch of the Foundation, Prosperity, and Ruin of the Franciscan Missions of California; Pomona's Daughter, by Frank R. Stockton; My Adventures in Zulu, by Frank H. Cushing; Du Maurier and London Society, by Henry James, Jr.; A Woman's Reason, by W. D. Howells.

The *May Harper's Magazine* is a charming number. Its table of contents is unexcelled. A few among many good things are:

George Ticknor Curtis's second paper on The Treaty of Peace and Independence; Benson J. Los-

sing's article on The National Academy; Wm. C. Conant's admirably written and illustrated description of the Brooklyn Bridge; John F. Weir's Art Study at Home and Abroad; Mr. Blake's Roman Carnival Sketches with Reinhart's animated sketches, and Walter Herries Pollock's article on Anthony Trollope, with the finely engraved portrait by Baude of Paris. The stories are good. Mr. Bishop has an appreciative article on San Francisco, which, in the main, would give a just and satisfactory picture of the city to a native who had not beheld his birth-place for several years. What pictures there are accompanying are excellent.

The articles in the *May Atlantic* are: Henry Cabot Lodge's Colonialism in the United States; Mr. Howells's Niagara Revisited, Twelve Years After their Wedding Journey; Oliver Wendell Holmes's poem, The Flaneur. Other articles are: Miss Sarah O. Jewett's first part of a story, A Landless Farmer. For musical readers there is a paper on Wagner in the Contributor's Club, and a very interesting account of Grieg, the famous composer, of Sweden, and his wife.

It is an oversight to mention Henry James, Jr., last, although he comes first in the table of contents with the second act of his dramatized "Daisy Miller."

Our Little Folks is a magazine for children which deserves an extra word of commendation. It never contains too much reading matter, but always just enough, and of the right kind. Its price, \$1.50 a year, puts it within the means of every district library and home.

FOR LIGHTER HOURS.

"All work and no play makes Jack a dull boy."

A teacher once prefaced his discourse upon the rhinoceros with—"I must beg you to give me your undivided attention. Indeed, it is absolutely impossible that you can form a true idea of the hideous animal of which we are about to speak, unless you keep your eyes fixed on me."

Butcher—"For dinner? Yes, ma'am. Nice quarter of lamb, ma'am?"
Mrs. Turtle-dove (a bride of two weeks)—"O, but there are only two of us! Don't you think an eighth would do as well?"

Many a boy has declaimed at school Charles Sumner's famous speech in regard to the old battle-flags. There is one sentence in which the orator, referring to the fallen soldiers, exclaims, "Let the dead man have a hearing!" We remember listening to the rendering of this piece by a youthful aspirant for oratorical fame before an audience of select visitors. Imagine the horror of the teacher when, in stentorian tone, the boy cried out, "Let the dead man have a *herring*!"

Little Leon H——, aged five, accompanied his mother to a dry-goods store in Chicago, recently, to make some purchases. With Mr. Brown, one of the salesmen, the youngster is a great favorite. Addressing him familiarly, Leon said, "Mr. Brown, I know a man up on 'Twenty-second Street who has the same colored name you've got."

A short time ago, at a school in the north of England, during a lesson on the animal kingdom, the teacher put the following question: "Can any boy name to me an animal of the order of edentata—that is, a front-tooth toothless animal?" A boy whose face beamed with pleasure at the prospect of a good mark, replied, "I can." "Well, what is the animal?" "My grandmother," replied the boy in great glee.

Dr. Hawks, an eloquent and popular New York divine, once asked the vestrymen of his church to increase his salary because of his increased family expense.

"Don't trouble yourself," said the vestrymen, "the Lord has said he will care for the young ravens when they cry."

"I know that," said the clergyman, "but nothing is said about the young Hawks."

On one occasion an English gentleman who possessed a keen wit was at a brilliant assembly of the *élite* of Vienna, where a distinguished lady of that city frequently amused herself and immediate circle of friends by saying smart and rather uncourteous things, evidently for the purpose of annoyance. "By the way," inquired his fair interrogator, "how is it your countrymen speak French so very imperfectly? We Austrians use it with the same freedom as if it were our native tongue." "Madame," retorted the Englishman in the blandest manner, "I really cannot say, unless it be that the French army have not been twice in our capital to teach it, as they have been in yours."

One of the most distinguished incidents of Zimmerman's life was the summons which he received to attend Frederick the Great in his last illness, in 1786. One day the King said to this eminent physician, "You have, I presume, sir, helped many a man into another world?" Any ordinary person would doubtless have been scared by so momentous an inquiry, and it was, in fact, a somewhat bitter pill for the doctor; but the dose he gave the King in return was a judicious mixture of truth and flattery: "Not so many as your Majesty, nor with so much honor to myself."—*Harper's Weekly*.

BROUGHT IT IN.—An old lady, residing in one of the charming villas near Tours, Paris, observing that her watch had stopped, told her maid to see what o'clock it was on the sun-dial in the garden. In a few minutes she returned, quite out of breath, and carrying something heavy in her apron.

"*Ma foi*, madame," said she; "I can't make out what it says, so I have brought it in here that madame may look at it herself."

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No. 6



THE MODOC SCHOOL.

CHAPTER II.

STARTING SCHOOL.

Cañada Grande was noted for being one of the prettiest places in Pacific County. The house stood at the mouth of the cañon, and faced the blue Pacific, which was about ten miles distant. On three sides rose the peaks of the various coast ranges, the nearer gray ones gradually changing in color as the ridges stretched farther away, until they became lost in a blue obscurity. The wide plains of Pacific Valley lay between the house and the ocean, and near the eastern side of the cañon the valley broke up into three or four smaller valleys, dotted with farms and orchards. The principal streams were fringed with willows which hedged the fields of green alfalfa, lying below the irrigating ditches. Farther up, the eucalypti rose in *parvenu* stateliness high above the humbler peppers at their feet, and seemed to glory in outgrowing their last year's garments, which hung in rags about their trunks, rustling and shaking in the wind. Up in the cañons the various oaks, rugged and knotty, dotted the green hillsides, and offered shade to scores of half-wild cattle herded by still wilder *vaqueros*. The landscape was in itself a school, teaching the artist soul, and leading even the dull and inartistic to higher, purer life.

The house was a large, two-story building, and a wing containing a school-room, and a play-room for wet weather below, and six bedrooms,

and a hall in the second story had been newly added. The twelve pupils who met there on the first of January thought it a grand place indeed, for the most of them had been used only to the rudest cabins and crowded quarters, and they felt shy and out of place in their new home.

Glen Goodwin could not help but feel a deep sense of responsibility as he viewed his family, and reflected that these children were given to him for the next two years to care for, train, correct, reward, and punish.

Archie King, a bright boy of eight, was the son of a bee-keeper living in a cañon of Tar Mountain. His mother was dead, and his father, made poor by several poor bee-seasons coming in succession, was glad to get Archie a good home for two years, where he could be at school.

Byron Tennyson Jones was a year older, and was emphatically a spoiled boy. An injudicious, over-fond mother, and a too strict and stern father, had made him selfish, deceitful, boasting, and overbearing. Disgusted with his behavior, and seeing no remedy while he remained under his mother's influence, his father had besought Glen Goodwin to take the boy, and try to do better by him than his parents had done.

Joel and Joseph Crane were twins. They were ten years old, and so much alike that even those who had known them for years could hardly tell them apart. Their father owned large bands of sheep, and the boys had been kept at herding ever since they could run about.

Jose Maria Alvarado and his younger brother Antonio were of Spanish descent, as their names indicated. Antonio was eight and his brother was eleven years old. They could scarcely speak a word of English, but they were skillful riders and expert with the lasso, which their parents had considered the most important parts of one's education.

There were two other Spanish pupils, Isabel de la Guerra and Inez Arguello, both belonging to those families who still pride themselves upon their pure Castilian blood, though their children may run naked over the dirt floor of their shanties. Isabel was about nine years old and Inez eleven. The parents of neither knew the exact ages of their girls, for it is not so important to keep track of the age of a girl as of a horse; and if the age of the former was once forgotten, it could not be learned again by looking at her mouth, as with a horse.

Hester Blumberg and her sister Flora were of German descent. Their father was dead, and the mother was offered a good situation as housekeeper if she was not burdened with her girls, and she gladly accepted May Harvey's offer to get Glen Goodwin to take them. Hester was ten and Flora two years younger.

Mary Trotter and Caroline Hopper, aged respectively nine and eight, were orphans and cousins. Full of mischief and always in trouble, the people who had taken them were glad to shift the burden on other shoulders, and get the girls good homes for two years, when their work, if they returned home, would be worth their keeping at least.

These were the twelve pupils, who were seated around the table,

doing ample justice, in spite of a little homesickness, to the New-Year's dinner set before them.

The following Monday found them tolerably well acquainted with their new quarters and with each other. Each pupil had a desk, and at eight o'clock all were seated in the school-room, ready and anxious to begin work.

On examination, it was thought best to divide the pupils into three classes of four each, since beginners need so much individual attention. The four Spanish children were put into one class; and as Archie King, Byron Jones, and the two Blumberg girls could read a little (having been taught at home), they were classed together. The remaining four formed the other class. Glen Goodwin had agreed with May Harvey that he should do the class instructing and she should see that the pupils did their work properly at their seats. Since there were three classes, only one of which could recite at a time, the seat work must necessarily take twice the time that the class exercise did, if the pupils were kept constantly employed. But this, with beginners, was neither possible nor desirable; so after the class exercise the children were allowed to do what they liked for ten minutes, then work was given them for twenty minutes, and a rest again of ten minutes before the class exercise, which was twenty minutes long. The first hour Glen devoted to language lessons, including reading; the second hour was given to numbers, followed by gymnastic exercises, drill in marching, and certain games; the third hour was devoted to the study of form, color, etc., and included writing and drawing exercises; the fourth hour was devoted to industrial labor, though the little ones were taught to consider it as a pastime and a privilege.

Glen Goodwin found that twenty minutes was a long time to keep the attention of a little, untrained pupil, and tired enough was he long before noon arrived. He had adopted four hours as the proper length of time for the school proper, in accordance with the California school law; but he felt that it must certainly be too long if the pupils felt as tired as he did. He began to wonder how teachers could get along with five times the number of pupils he had, and have no assistant either.

Even Nora Saxon had three times as many, and though, like most teachers, she complained of being overworked, yet it seemed to agree with her. The afternoon found Glen in the school-room, alone and utterly discouraged with his unaccustomed task. The children were out in the yard amusing themselves, and the older folks were out there too.

"How can I ever stand it for two years," thought Glen, with a sigh of despair. "Young barbarians, with no thought of others' feelings, and only caring for present bodily enjoyments. If it wasn't dishonorable, I'd hire assistants and turn over all the work and worry to them. Where are my theories of moral suasion going to? I felt like shaking half a dozen of them this forenoon. Ruling by love! How can one love such savages!"

Just then the door was pushed timidly open, and the merry face of one of the young savages peeped in through the half-open door. Seeing

that Glen did not look up or seem to notice him, Archie King gained courage, and coming up to Glen, climbed up into his lap, and putting his arms around Glen's neck, laid his cheek caressingly against the other's face.

It was not in Glen Goodwin's nature to refuse such delicately offered consolation, and putting his arms around the little lad, he drew the boy closer to him.

"Aren't the bees going to do well this year?" asked the little fellow, gravely looking into Glen's solemn face, which he stroked caressingly with one hand.

Glen burst into a hearty laugh at the queer question, which had a touch of pathos in it, too, when one remembered that the bees had done very little since 1878, and that Archie's father had been one of the sufferers thereby.

"I hope our bees will, my little bee-man," replied Glen, more cheerfully than he felt. "You see, my little boys and girls are my bees, and I want you to be worker-bees, and gather lots of honey, and not grow up to be drones." The little boy looked somewhat puzzled at this reply.

"How do you and the others like it here?" asked Glen. "Do you get homesick any?"

"I'd like it first rate if my papa was only here," said Archie gravely; "but you see I don't know folks like I know him. But you are going to be my papa for two years, he said, and he told me you'd be real good to me."

"And so I will," cried Glen, pressing the trusting little one closely to his breast. "So I will, my boy, and if I get cross and discouraged because the bees don't do well, you must climb up into my lap and comfort me just as you did just now."

"I know," said Archie, gravely. "Papa says it don't matter so much if the bees don't do well if I do well; and I am going to learn ever so much, and take care of papa when I grow up."

Glen leaned over and kissed the bright face that was lifted so confidently towards him, and felt that somehow his labors would henceforth be lighter.

"Quite fatherly, I declare," said a merry, half-mocking voice; and May Harvey stood looking at them from the doorway.

Glen felt and looked annoyed, as men of his age nearly always do when caught by some one in a display of sentiment.

"My books of theory say a teacher should try to win the love of his pupils the first thing," he replied.

"They also warn one against partiality," said May. "You must treat all your children alike, Father Goodwin," and with a mocking bow she turned away.

"I believe I am partial," thought Glen, somewhat remorsefully. "I do think more of this boy now than of all the others put together. This must not be. I have heard it said you can train yourself to like even the worst child; and if coquettes and male flirts find it so fascinating to win

the affections of the other sex, let me see if I can't make it a pleasure to court the love of my pupils." So resolving, he took Archie by the hand, and putting on his hat, went out into the play-ground, where the others were still engaged in exploring the wonders of the fish-pond, and the many new plants and curiosities they found in the yard.

"Let us have a game of black-man," he proposed; and soon all were busily engaged in that play, and even Uncle Samuel tried one or two runs between the bases. But old blood moves too slowly, and he was soon contented to watch the others, and tell tales of his exploits in his young days—a theme which never loses its interest to most old people. Of course, the most fun was in catching Glen when all the others had been captured, and had themselves become "black-men"; and in the hour spent at this game, Glen made greater advances in the regard of his pupils than he had done in the two days previous. Children are born hero-worshippers, and Glen, having been a famous runner in his school-boy days, gave them many an exciting chase, permitting himself at last to be caught by some of the poorer runners. Miss Saxon came just in time to join in the last game, and it was a jolly party which repaired at last to supper.

At the table Glen had been annoyed at the uncouth manners of the little folks, and at Nora's suggestion, some simple rules of behavior were given the children, and each of the older people was given certain ones of the children whom they were to watch over and attend to their wants and their manners. The girls were quick to take hints and adapt themselves to the new order of things, but it was some time before some of the boys ceased to use their fingers or knives instead of the forks or spoons. But all long days have an end, and eight o'clock found the little ones all in bed and asleep; and as the last one was disposed of, Glen heaved a sign of relief, and ceased to wonder at the immense sale of soothing syrup if babies were half as troublesome as their older brothers and sisters.

Santa Paula.

C. M. DRAKE.

WORK IN WRITING.*

I TAKE it for granted that nothing as to the origin, history, benefits, or uses of this art is required or desired at the present time; but simply to deal with the practical methods of teaching it.

Children love to imitate, and strive to reproduce forms; a letter, however, may be presented to a child daily without leaving any distinct impression upon the mind, but having once formed it, he feels that it is in a manner his own.

Thus, little hands and eyes are not only furnished employment, but the child is becoming familiar with the forms of letters. Hence, reading and writing should commence at the same period, as they are a mutual aid. Teach

* Read before the Teachers' Institute at Virginia City, Nev., Jan. 19th, 1883.

the lowest primary classes to write script, and not printing; they should commence writing first upon slates, which should be ruled upon one side. When sufficiently advanced, let them write and re-write No. 1 of the copy book, using tracing pencils or lead pencils only, which should always be of sufficient length to be held like a pen, and the manner of using and holding them cannot be too carefully taught. This will do for one or two years' training in penmanship.

Then begin the use of the pen, striving at the very commencement to teach them to hold it properly, for if the habit of curling up the fingers or resting the hand upon the side is once formed, it will require much time and patience to correct it. No. 2 copy books may be used in third and second primary classes, and No. 3 in the first primary, using Nos. 4 and 5 in the different grammar grades when sufficiently advanced to commence shading.

It is frequently asked if it is absolutely essential for a child to understand the elements and principles of the letters in order to become a good writer. There are, no doubt, many good writers who know nothing of the principles of the letters they form; and many excellent teachers entertain widely different views in regard to the proper method of teaching writing. Some adhere very closely to analytical methods, and strongly insist upon rigid analysis. Others are equally positive that the synthetical is the only true method, claiming that the human eye can as clearly perceive the formation and characteristics when presented as a single form, as when the letter is broken up into its respective parts. This theory our specialists in penmanship will not admit; and many progressive educators are combining the two, deeming them only the necessary parts of *one* method, and each the relative and correlative of the other.

Before deciding, it might be well to ask, What is the object in view?

If the pupil is to become an adept in the art, he cannot have too careful instruction in the analysis of letters, for he cannot attain to high rank in the profession without it; but if a plain, rapid, business hand is required, without reference to any conventional standard, then analysis is not of paramount importance.

As a rule, those who give most attention to analysis write most slowly and most legibly.

In case where the teaching of elements and principles is not practicable, it is well to impress upon the minds of the pupils some *general* principles or facts. For instance: that the thirteen short letters (i, u, w, n, m, x, v, o, a, e, c, r, s) form a distinct class, occupying just one space, except r and s, which require to be about one-fourth space higher. That t, d, p, q are the four semi-extended letters, explaining their respective limits. That h, k, l, b are upper loop letters, to be extended two spaces above the middle space. That j, y, g, z are lower looped letters, to be extended two spaces below the middle space; while f is both upper and lower looped, extending two spaces above and two below the middle space. This includes the entire alphabet in small letters.

As there are but three general principles in forming capital letters, they can readily be taught. The first (the capital stem) being very important, requires much practice, as it occurs in fifteen of the capital letters. The

second (the direct oval) is found in five capital letters; and the third (or inverted oval) is found in seven.

In conducting a class in writing, every teacher, presumably, has his or her own method of opening and closing the exercises but I am of the opinion that it is best for all writing materials to be kept in charge of the teacher.

There are four positions at the desk, all of which are proper, provided the paper, hand, and arm are correctly adjusted. The right side toward the desk is the position most frequently chosen for learners, as it presents some advantages for them as well as for the teacher, and when the art is acquired, any other position will be found equally available; whatever position is decided upon, the teacher should insist upon its being uniformly kept by every member of the class during the writing exercise. Special attention should be directed to the following points: Keep the right forearm on the desk, at least as far as half-way between the wrist and elbow; keep the book or paper at right angles to the forearm, and the hands at right angles to each other; avoid leaning against the desk or dropping the body into an awkward, tiresome position.

Take the pen between the first and second fingers and the thumb, the pen-holder crossing the hand just forward of the knuckle joint, and crossing the second finger at the root of the nail. The thumb should press the holder opposite the first joint of the first finger. The third and fourth fingers should be drawn back to form a rest for the hand.

The pen-holder should be held at an angle of 45 degrees, the top pointing toward the shoulder.

In practical business penmanship the finger movement and forearm movement should be combined, but in the execution of large capitals and in flourishing no rest should be made except upon the fingers.

When ready to commence the writing exercise, call the attention of the class to the copy, eliciting by questions all they can discover concerning it.

Use the blackboard freely; let the teacher write the copy upon it, and send different pupils to write it, letting the others criticise. They will thus be trained to habits of *observation*, the true method of acquiring the foundation of knowledge.

The teacher must know what is to be done, and how it is to be done. It is a good plan for him to write the same book himself which the pupils are using; he will thus acquire a more lively appreciation of the number of minute points requiring attention, and the difficulties to be encountered.

Nearly all teachers find it very difficult to keep the pen and hand of the pupil in proper position (the result in most instances of bad habits previously formed), for which I know no remedy other than patience and perseverance.

It is preferable to have children write down the page, from top to bottom, rather than across, and each time the line is finished, call the class to observe correct position.

To teach children to criticise their own work is one of the secrets of success. Many pupils can scarcely tell a straight line from a curve, and all varieties of slant are equally satisfactory; they must be trained to improve the deficient faculty. Special care should be taken that the pen-holder be held

gently between the fingers, and not tightly grasped, as it will destroy all freedom of movement. Pupils should learn thoroughly the form and proportions of all letters before permitted to shade them. The principles of shading are few in number (five), and easily taught. At least thirty minutes should be devoted to the writing exercise each day.

All should write upon the same page and same copy at the same time. Every pupil should have a blotter, pen-wiper, and especially waste paper for use in training the hand in free movement exercises, also for practice upon the copy preparatory to writing in the regular copy book.

There are many critical points which may be noted, such as keeping the hand well up, not falling over to the right; the separation of the hand rest from the pen fingers; taking care that the wrist does not touch the paper; making the slightest possible movement of the pen fingers, except in the extended letters and capitals; and using the muscle of the forearm as the center of motion.

While the golden rule in other branches is review, review; in writing it is practice, practice; without it none can hope for anything like perfection; and in this art, as in almost everything else, one's success depends upon the *effort* made.

As writing is the result of movement subjected to law, and the law is determined by the forms required to be made, there must be a definite knowledge of those forms; hence any system which will most effectually call into action the observation and attention of the pupil will be most certain of success.

MRS. M. E. JONES.

Virginia City, Nevada.

PROFESSOR H. C. OF THE COUNTY OF V.

A TRUE TALE IN RHYME, WRITTEN BY C. M. D.

PROFESSOR H. C. had spent half of
his life,

A poor forlorn pedagogue minus a wife;
And Professor C. says: "How can this be,
That I, who have taken an A. B. degree,
Am struggling through life all forlorn and
alone,

No wife and no children, no comforts, no
home,

While many an urchin I once flogged at
school

Has all of these things? O, the luck of a
fool

Is said to surpass all the wit of the wise;
But I'll give my friends just a quiet sur-
prise,

In about—say a month I'll a married man
be,

And ask them all in to see Mrs. H. C.

Now, I know some would say that in choos-
ing a wife

I should seek a companion near my age of
life,

But I plainly see that this must not
be;

If you'll but think a moment you'll surely
agree

That most of those over—we'll say thirty-
three

Have been picked over time and again it
may be,

And are but the leavings. They've been
sorted out,

And all of the odd ones of whom we'd a
doubt

Of temper or value in housewifely ways

Have been left to spend all the rest of their
days

In old maid repentance, cats, parrots, and tea ;
 I pity them, but they can't be Mrs. C.
 No, I'll take a maiden just out from the school,
 One I've broken myself, who knows my way and rule ;
 Who has not been spoiled by courtship and beaux,
 Till flirting and dancing is all that she knows.
 There is many a maid in this country of V.
 Who would be highly honored to be Mrs. C.
 Of course girls want coaxing, they make believe shy,
 But they want to get married as badly as I ;
 For to be an old bachelor is bad enough,
 But to be an old maid—that is three times as tough.
 Now foolish young fellows spark here and court there.
 Give buggy rides when the moon shines full and clear,
 Go to dances, and spend all their money before
 They know whom they want. Now I am quite sure
 The right way is not to act like a dum fool,
 But to go for a wife like you go for a school.
 Go to the trustees, i. e., father and mother ;
 Make friends with the patrons (her sisters or brother) ;
 Talk just a bit soft—all woman like that—
 Show your references (deposit certificates) ; chat
 About comforts of home life. Her heart you'll ensnare,
 And she'll fall in your arms like a ripe Bartlett pear.
 So forth H. C. started to get him a wife,
 So that he might take added comfort in life,
 Might double his joys and divide up his woes,
 And have the wherewith to keep warm his cold toes.

The first girl he asked simply laughed in his face,
 The second said "No," with the most charming grace,
 Poor Professor C.! Such a hard time had he!
 He found that the titles A. M. and A. B. Didn't cover the female A.'s which far surpassed
 All of his feeble science. He gave up at last,
 After seventeen trials, and said, "There's no doubt
 There are some things about girls I haven't found out.
 But is a long lane that has never a gate,
 And one day at neighbor T.'s he met his fate.
 A widow of thirty and *willing* (T.'s daughter),
 And he like a lamb being led to the slaughter,
 Just blatted and trembled, she pitied and blushed.
 He heels over head into love with her rushed.
 She had one encumbrance—a girl—but you know
 He always liked girls, big or little, and so
 This one was "my daughter," when fair Widow B.
 Said "Yes," she was willing to be Mrs. C.
 You can't find a man in the county of V.
 Who is happier now than Professor H. C.
 He brags of his boy and his wife and his cow,
 And says to us bachelors, You don't know how
 To get round the fair sex. You'd like to—no doubt—
 But I fear you are going to be badly *left out*.
 Yes, you've a fine ranch, but you'd swap in a minute
 For my little house with the wife that is in it ;
 And as for the boy—the whole bank of V.
 Couldn't buy such a treasure—yes, he looks like me.

EVIL LITERATURE—ITS INFLUENCE IN THE FORMATION OF THE CHARACTER OF THE FUTURE CITIZEN.*

I COME now to speak of an agency that is doing more than all the others mentioned to inculcate and foster this spirit of lawlessness in the young.

For sale in our bookstores and at our news stands, and circulated through the mails, are certain classes of cheap books and periodicals. These are bought and read by many of our boys and girls. These books and papers are published as serials, weekly or monthly, and go under various general names such as "The Nickel Library," "The Half-dime Library," "The Pocket Library," "Beadles' Dime Novels," "The Boys of New York," "The Boys and Girls' Weekly," "The Champion," and "The Young Men of America." No invention of Satan was ever more ingeniously contrived to corrupt the mind and deprave the heart than are these vile publications. Every bright imaginative boy and girl has a love for the romantic; and stories of thrilling adventure and reckless daring are attractive reading to such. Catering to this taste, but vitiating it with impure ideals, the authors of these stories have made the wild adventures and lawless deeds of desperadoes their most fruitful themes.

On the first page of the book is usually a wood-cut picturing some exciting incident of the story, thrown out as a bait to lure the reader. The most commonly depicted scene is a desperado with a revolver in each hand facing a mob of cut-throats similarly equipped, and in choice slang inviting them to come on "if they want to boom the price of coffins in Bunkumville," or "to spread a buzzard feast in clear grit." The alliterative and high-sounding titles of these books are attractive. What boy with the spirit of adventure strong upon him could resist the temptation to invest a nickel in "Roaming Ralph Rockwood, the Reckless Ranger"? What a fascination for such a boy in "Panther Paul, the Prairie Pirate," "Double Six, or the Dominoes of Death," "Dashing Nellie, the Road-agent of the Rockies," "The Buffalo Demon, or the Border Vultures," "The Cavern of Death, or the Maiden Avengers!"

What incentives to crime, and what careful instruction in its commission, are to be found in such stories as "The Thugs of Paris," "The Masked Safe Blowers of Chicago," and the round dozen of five-cent books detailing the robberies and murders of those border demons, the James boys!

To satisfy myself of the real character of these publications I selected a few samples of the different series and read them. I must confess my astonishment at the total depravity of the mind and the heart that could write and publish such books for circulation among our boys and girls.

There is not a sin forbidden in the Decalogue but is pictured in attractive colors in these books. In them the most debased criminals are made to play the role of chivalric heroes; and crimes the most diabolical to assume the guise of heroic acts, and to become deeds worthy of emulation. Murder in them is so common that it becomes commonplace, and the author's ingenuity

* An extract from an Address—The Relation of the Public Schools to Future Citizenship—delivered before the Los Angeles County Teachers' Institute by City Superintendent J. M. Guinn.

is often taxed to the utmost to invent some unheard-of fiendishness in its perpetration, so as to give pleasing variety to his readers, and to portray his blood-stained hero a man of genius and infinite resource in the art of killing.

Nor are the sanguinary characters of these stories all of the male sex. Gentle woman handles the revolver, plies the dagger, wields the bludgeon, deals out poison, and cuts throats with a dare-devil dash that wins the admiration of her bloody admirers.

Take this as a sample of what a nickel heroine can do: Dashing Nellie, the Road-agent of the Rockies, is a frolicsome lass of eighteen summers—beautiful as an angel's dream, and agile as a female panther. From her earliest years she is accustomed to ride the untamed mustang of the mountains with a recklessness that betokened for her a noble career. After many adventures she becomes the leader of a band of robbers; shoots or stabs half a dozen men, makes love, is betrayed and deserted; then on bended knee with uplifted hands before high heaven she vows revenge. Like a sleuth-hound she follows her betrayer, drugs his wine, and, while he is insensible, carries him to a lonely place in the mountains, digs a pit, and buries him to the neck in the earth, and then from a secure place watches with frantic glee the wolves eat his head off. This young lady quits the bandit business, marries an English lord, and becomes a model of nickel virtue.

Another half-dime heroine of the beautiful-Indian-maiden pattern, to revenge herself on a man who has trifled with her copper-colored affections, bursts the dam of a mountain reservoir and sweeps to destruction her recreant lover, a mob of vigilantes who are engaged in the pleasant pastime of hanging an innocent man, and the inhabitants of the valley below. The scene after the subsidence of the waters is thus graphically described by the author: "Dead and mangled human bodies met the gaze on every side, and great vultures floating silently in the air gloated over the feast of putrid human flesh spread below."

In the *denouement* of another of these novels the good men of the story hunt down the bad men with blood-hounds, and in the presence of their captives hold a council to determine whether they shall flay them alive, burn them at the stake, or, Prometheus-like, bind them to the rocks for the vultures and the wolves to devour.

In one of the books that I reviewed, I find in the opening chapter an account of three murders, two lynchings, one forgery, one betrayal of womanhood, one incendiarism, with a filling in of larceny, falsehood, drunkenness, and other minor crimes; and this was not the longest chapter in the book.

The authors of these stories seem to have a standing grudge against the noble red man. Indian fighting is their most fruitful theme. One of their nickel heroes will slaughter more Indians before breakfast than General Crook's whole command in a summer campaign.

Next to the Indian theme in popularity comes the road-agent and the desperado of the frontier. Then we have the impossible adventures of youthful explorers in the heart of Africa, in Patagonia, at the North Pole, and on unheard-of islands of the Pacific. The geography of these stories is as unre-

liable as the explorations and discoveries are impossible. Occasionally, the authors assume a highly moral tone, and produce missionary stories and temperance tales; but be their themes what they may, "The trail of the serpent is over them all."

Their influence on the youthful mind is devilish. Familiarity with murder and bloodshed cheapens the sacredness of human life and blunts the sensibilities. The views of life they inculcate are false, vicious, and unnatural. No nickel hero ever wins fame or fortune by sobriety, industry, and honesty; but by such short cuts as robbery, gambling, or the finding of treasure caves and inexhaustible mines of gold.

These books ruin concentration of thought, destroy the taste for useful reading, deprave the character, and debase the heart. They lead their readers to hate honest work, to despise truth and dishonor purity. They encourage lawlessness, corrupt the imagination, gild vice, and glorify crime. They ridicule parental authority, sneer at religion, and burlesque morality.

Such are the seeds of vice that a corrupt press is sowing broadcast throughout the land. "What will the harvest be?" We are reaping it now—reaping it in the increase of juvenile depravity in our cities and towns; and we will continue to reap it in years to come in crops of tramps and vagabonds, in lewd women and depraved men, in communists and dynamite fiends, in thieves and murderers. The New York Society for the Suppression of Vice has investigated this subject, and has endeavored to find out "what proportion of the enormous increase of crime among young persons is due to the spread of vicious books." The officers of that society report many cases in which boys of tender years have been convicted of heinous crimes to which they have been led by reading these books. "Boys have formed brigand organizations under this devilish influence and become highwaymen and murderers before they were sixteen."

The frequency of crimes induced by such reading is truly frightful. From the local and telegraphic columns of the newspapers a long list might be compiled during the year.

I give a few as samples, all of which and many more unrecorded were committed within the past two months.

A boy of fifteen in an eastern village deliberately shot a playmate for calling him names, in imitation of a hero he had read about in a blood-and-thunder novel. His victim died a few hours later amid weeping friends; but the young assassin seemed to have no realization of the crime he had committed.

A boy of seventeen in Minnesota shoots and kills two men with whom he is traveling. He is lynched by an indignant community. Under the gallows, he confesses that he was actuated to commit the murders by reading flash novels and police gazettes.

"New York, March 5th, Emil Galthain, a boy of seventeen, robs his mother of \$70. He is found next day by a police officer armed with a blunderbus, four revolvers, a scalping knife, and a railroad ticket to a western city. For the past two years he has been a devourer of dime novels and flash story papers."

"New Haven, March 6th, Lowe A. Dennison, aged sixteen, a devourer of dime novels, shot himself dead last night."

"Port Jervis, March 11th, two boys, aged fourteen and sixteen, were arrested at the depot last evening; each was armed with a Sharpe's rifle and four revolvers. They had stolen the money for their outfit from their parents, and were on their way out West to fight Indians." The dime novel again.

Here is one fresh from the morning paper (*S. F. Chronicle*, April 7th). Yesterday morning Sergeant Chase of Oakland received a telegram from Chief Crowley of San Francisco police asking him to keep a lookout for three runaway boys and arrest them. The boys were arrested on the overland train at Sixteenth Street station. They gave their names at the police station as William W., aged fifteen years, James G., aged thirteen, and Eddie S., aged eleven years. When searched they had in their possession three bull-dog revolvers, \$11.50 in coin, and three watch chains. On the way from Sacramento they had "rolled a drunk" on the train and robbed him of \$80, with which they purchased each a suit of clothes and their war implements. These are sample items of a few weeks; what a black list the reports of a year would make!

The amount of this pen-poison sold is truly appalling. A writer in the *Overland Monthly* states that one company of news dealers in San Francisco last year circulated 212,000 copies of boys' papers, and 285,000 copies of nickel and dime novels. The yearly circulation of this trash through the mails and by dealers in San Francisco alone is estimated at a million and a half copies. The circulation through dealers and by mail in our own city (Los Angeles) is not less than two thousand copies per month, or twenty-four thousand a year. The yearly sale of this pen-poison in the United States must run up into billions. Nor is the circulation of these books confined to the cities and towns. They find their way into the remotest country districts. Every copy bought is read and often re-read, loaned and re-loaned. Boys pool their nickels and form circulating libraries of these books; and apprentices and shop girls invest their scanty savings in them. Nor are boys and girls the only readers of these; sentimental young women and silly young men read these books and periodicals, and, if possible, some of the papers are worse than the books. Even fathers and mothers buy them and read them in the family circle, unknowing, or if they do know indifferent, to the evil influence of such reading. They read them because the stories are exciting, because they are sensational, because they pander to their depraved taste. Like the opium-habit and the use of alcoholic stimulants, the taste for such reading grows and becomes all-controlling from continued indulgence.

I have devoted a great deal of space to this subject of evil literature. I offer no apology for so doing. This is a subject that needs agitating. There is an apathy in the public mind in regard to it. I find teachers uninformed on the subject. I find intelligent parents ignorant of the existence of such books, and others doubting the harm done by them.

Public sentiment must be aroused in regard to the sale of these publications; and the subject must be agitated until they are banished from the book-

shelves of our news dealers, and prohibited circulation through the mails. Even if from no higher motive than economy, this should be done. If these publications are filling the land with young criminals, they are increasing the cost of government. Virtue is economy; it is vice that costs. Sweep out of existence the dram shops, evil literature, and kindred demoralizing influences and the cost of government would be reduced to the merest fraction.

What can the teacher do to arrest the spread of evil literature? Both inside and outside of your school-room you can throw the weight of your influence against it. Endeavor to cultivate in your pupils a taste for good reading. Encourage the reading habit, but be careful to direct it in the right channel. Make judicious selections for your school libraries. Do not get above your pupils' comprehension. Neither select too much fact nor too much fiction. If you have not read the books yourself, be guided in your selection by the names of the authors. Certain authors never write bad books; certain others never write good. It is always safe to buy books written by Louise Alcott, Trowbridge, Jean Ingelow, Stockton, Scudder, Pansy, Towle, Carleton, Knox, Butterworth, Miss Yonge, Helen Hunt, Mrs. Whitney, and many others that I might mention did space permit.

Keep a vigilant watch upon the reading matter of your pupils. Confiscate nickel and dime novels and sensational story papers whenever you find them in the hands of school-children. Purify all such pen-poison by fire, and last but not least, cultivate your own taste for good literature, so that you may be able to advise your pupils what to read.

J. M. GUINN.

Los Angeles, Cal.

EDITORIAL DEPARTMENT.

THE ISOLATION SYSTEM.

THE schools of California are suffering greatly from what may aptly be termed *the isolation system*. Every county forms within itself a little *imperium in imperio*, and in school matters seeks no intercourse with the world without. The local boards "raise" their own teachers and grant their local certificates; they get as completely into old and deeply worn ruts as possible.

In short, there is no circulation in our educational waters; it is all stagnation.

In proof, where do we hear of successful teachers promoted from one city to another? Of a superintendent chosen from beyond the bounds of his own district or county? Of a school department introducing new methods or improved apparatus into its schools? Of the indorsement and application of the great movements in education? Of advance in language training? Of systematic progress in any direction?

These vital omissions are inevitable in a State where there is a decadence in the standard of teaching. Our difficulty is, that teaching in California is changing from the professional character it had secured under the old Constitution to the rank of a transient and unstable occupation under the present fundamental law.

It is a disgrace that an idiotic and iniquitous measure like the proposed

amendment to the new Constitution, known as the Perry Bill, should have received consideration at the hands of the legislature.

That idiotic and iniquitous measure, the proposed amendment to the new Constitution, known as the "Perry Bill," clearly shows its treachery to the highest interests of popular education by the manner in which it proposes to deal with the book and certificate questions, now entirely in the hands of the local boards.

The preparation or adoption of books—does not this involve the mighty point of expense in dollars and cents?—is to be relegated to a State Board of Education. But the granting of teachers' certificates—this merely concerns the character of the instructors of our children, whether they be fit or unfit—this is to be left with fifty-two boards, each practically a State Board of Education, for each is supreme within its jurisdiction; and the teachers of two adjoining counties are professionally as widely sundered as if one class lived in Maine and the other in Texas.

Shame on such legislation! Shame on the degenerate spirit which reduces California from the position of an educational leader to a place in the rear ranks! From a rival of Massachusetts and New York and Ohio to an equal of Tennessee and Arkansas and Louisiana.

And what a pity it is that our school system has not a head with sympathy and wisdom and power to compel ignorant and mercenary legislators to keep their hands off the schools! As long as the party in power lacked the knowledge to legislate wisely, it would have been well had they not acted at all.

A STRONG COMBINATION.

IT is with great pleasure that we announce to our readers that we have made special arrangements with Dr. Thos. W. Bicknell, proprietor of the *New England Journal of Education*, *The Primary Teacher*, etc., etc., whereby these publications will be furnished with the JOURNAL at greatly reduced rates. The editor of this periodical will be State editor of the *New England Journal*. California school news will receive due space in that great journal, and the educational interests of this coast will be better subserved than in the past. Arrangements have also been made whereby articles of special merit and value will appear simultaneously in THE PACIFIC SCHOOL JOURNAL and in one of Dr. Bicknell's periodicals.

California writers having manuscripts to submit will forward them to the editor of this journal, stating if they have been prepared for both publishers or for but one. If accepted for both, *they will be suitably paid for*.

Educational news is solicited from all parts of the coast.

Local agents are wanted, to whom highly advantageous terms will be granted.

Rates for the combination are as follows:

The Pacific School Journal with New England Journal (alone, \$2.50).....	\$3.25
“ “ The Primary Teacher (alone, \$1.00).....	2.25
“ “ The Public School (alone, \$1.00).....	2.25
“ “ Education (bi-monthly), (alone, \$4.00).....	4.50

This is certainly the time to subscribe either for any one of these publications or for several combined.

Let it be remembered: Every teacher should read an educational journal; every good teacher will.

DR. BICKNELL'S VISIT TO CALIFORNIA.

DR. THOS. W. BICKNELL, one of our foremost American educators, and proprietor of the *New England* publications, recently visited this State and the Pacific Coast.

Dr. Bicknell is a gentleman, scholarly in appearance and affable in manner, who has combined business with recreation in what may be called his educational tour of the South and Far West.

While in this State, he visited some of our best schools, attended innumerable commencement exercises, and made the acquaintance of many of our leading teachers.

Dr. Bicknell is a close observer, and his criticisms on our schools, actuated always by the most kindly feelings, never fail to expose their shortcomings, while due importance is placed on their many excellent characteristics.

When Dr. Bicknell came to California, he was welcomed as a friend; his presence confirmed our feelings of friendliness, and we found his stay all too brief. He leaves behind him here thousands of earnest men and women who will look forward to each successive issue of the *New England* periodicals as to letters from a close personal friend.

TO TEACHERS.

OUR appeal to the teachers of California for continued support is meeting with a most gratifying response. Let the work go on. We hope no teacher will delay in sending in his own personal subscription, and in inducing his friends to subscribe as well. To make our journal permanent and a success, it is essential that we double our subscription list within the next three months.

We trust that the superintendents of the State will aid us actively in getting both teachers and trustees to take the JOURNAL now.

Let it be remembered that this journal is fighting for principle, not for spoils. *We*, at least, are not content with preaching non-partisanship in school affairs, but we practice as we preach.

The platform on which this journal asks the hearty co-operation of every educationalist in the State is this:

1st. The schools should be managed by educators, not by politicians.

2nd. The principles of civil service reform should be applied in our school departments, even if they are ignored everywhere else.

3rd. "The shoemaker should stick to his last"; that is, our newspapers should give the news and comment thereon, but prescribing the details and dictating the execution of our educational system is a function beyond their scope, a knowledge beyond their power.

4th. If reform is needed in our schools—and no intelligent teacher for a moment questions it—it must be accomplished by improving the system that we have, not by adopting the crude and visionary schemes that are daily proposed by amateur educators.

5th. It is not the function of an educational journal to be the representative or echo of any one man.

A school journal should be a faithful mouthpiece of the profession which sustains it. It should be on the same high plane as the leading minds of the profession, so that the mediocre may be improved and elevated.

We know our platform will suit the leading teachers of this coast. We confidently invite them, then, to rally to our support.

THE PROPOSED AMENDMENT TO THE CONSTITUTION.

BELOW we give the text of the proposed amendment to the Constitution on the subject of school-books. There is no space for adequate and appropriate comment on it in this number of the JOURNAL, but we hope to devote ample space thereto in subsequent issues.

An Act to amend the Constitution.

[Approved March 15, 1883.]

AMENDMENT TO THE CONSTITUTION.

The Legislature of the State of California, at its twenty-fifth session, commencing on the first Monday after the first day of January, A. D. eighteen hundred and eighty-three, two-thirds of all the members elected to each of the two Houses of said Legislature voting in favor thereof, hereby propose that section seven of article nine of the Constitution of the State of California be amended so as to read as follows:

SECTION 7. The Governor, Superintendent of Public Instruction, and the Principals of the State Normal Schools shall constitute the State Board of Education, and shall compile or cause to be compiled and adopt a uniform series of text-books for use in the common schools throughout the State. The State Board may cause such text-books when adopted to be printed and published by the Superintendent of State Printing at the State Printing Office, and when so printed and published, to be distributed and sold at the cost price of printing, publishing, and distributing the same. The text-books so adopted shall continue in use not less than four years, and said State Board shall perform such other duties as may be prescribed by law. The Legislature shall provide for a Board of Education in each county in the State. The County Superintendents and the County Boards of Education shall have control of the examination of teachers and the granting of teachers' certificates within their respective jurisdictions.

EDITORIAL PARAGRAPHS.

THIS journal is an earnest advocate of a speedy reform in our present absurd system of spelling. It believes that by a wise concert of philologists, authors, and intelligent people generally, even a single generation may witness vast improvement. But we must ask our ultra-reformers in this country not to forget the wisdom of "making haste slowly." All reforms are necessarily ahead of the age in which they arise. Let the spelling reform avoid the danger of getting so far ahead of our day that the people will find themselves hopelessly behind. It will be enough for one generation—nay, for two or three—if the twenty rules of the American Spelling Reform Association be adopted and thoroughly used. The time has not yet arrived for the adoption of a new alphabet.

And no new alphabet can ever find favor that has not the prime requisite of the same simplicity of form that now distinguishes our present letters. No such complex and un-English forms as we see in the *Fonetic Techer* will ever be favorably considered. They are open to the same serious objections as are the German characters, to which physicians attribute much of the eye-disease so widely prevalent among German students. There is a strong tendency in Germany to adopt our alphabet; let us not make the serious blunder (under the guise of reform) of introducing new characters which shall be neither simple nor easily distinguishable from those already in use. If we must have a new alphabet of forty-six characters, the ingenuity of man is surely capable of inventing twenty new characters simple in structure, and not too closely resembling the old letters.

A CORRESPONDENT asks us if we expected "Governor Stoneman to go back on the JOURNAL as he did on May 1st." Our answer is, No. But we have no word of condemnation for his action. Governor Stoneman is above all a gallant soldier and an able commander. As this journal matter was evidently represented to him, he undoubtedly considered it a case of the disobedience of a subordinate to his superior officer. The Governor hardly pretends to know anything of the educational law or polity of this State. He does not know that when the law speaks of an "organ" for the State Department of Public Instruction, it does not contemplate giving the State Superintendent a personal organ, but merely a medium for the publication of his official decisions and opinions on questions of school law, etc.

Neither the law, nor good public policy, nor common sense, would permit any State officer to have a personal organ.

Our journal, at least, is not the creation of any State Superintendent, nor is its editor his creature.

OFFICIAL DEPARTMENT.

SUPERINTENDENT WILLIAM T. WELCKER, EDITOR.

—, *Co. Superintendent Schools*, — County :

DEAR SIR—As the salaries of incumbent officers will not be affected by the County Government bill, we must look to the Political Code, except in counties operating under a special statute. Section 1552 leaves your allowance for traveling expenses in the discretion of the Board of Supervisors. If their allowance is not reasonable, your only recourse will be to a lawsuit or reasoning with the Board. I would not be hasty to go into litigation. Two dollars and a half a day is not sufficient; endeavor to make them see it.

As to limiting the time, they cannot put that below what is amply sufficient in which to discharge the duties imposed by law.

By the fifteenth subdivision of section 1543 you are required to grade each school in July of each year, and by the fifth subdivision of the same section you are required to visit and examine each school of your county at *least* once in each

year; and this implies that you may visit them as many times more as in your official discretion you may deem desirable. In my judgment, the more frequently you visit the schools the better for them, for the county, and for the whole State. I earnestly hope that the Board of Supervisors will take a broad view of the matter, and deal with you in the most liberal manner.

DEAR SIR—In your communication of the 5th inst. you state that “the County Board of Education of this county did not in their course of study name any text-books for mental arithmetic and word-analysis; have I a right to use such books as were before in use in these branches?”

I answer “Yes,” unless doing so would be against the intention of the Board of Education, and there shall be time after full instruction in the course prescribed by the Board.

Secondly: As to discontinuing the primary and continuing the grammar school during the remainder of the term, I think the trustees have not the power. Section 1619 Political Code ordains that “the Board of Trustees and City Boards of Education must maintain all the schools established by them for an equal length of time during the year, and as far as possible with equal rights and privileges.”

DEAR SIR—You ask what can be done with the territory of a lapsed district? I think that if the district was originally formed of one or more districts it will return to it or them. In case it was not originally so formed it would under the provisions of section 1577 of the Political Code, be attached to a contiguous district.

DEAR SIR—Your letter of the 5th inst. came to hand yesterday. You inquire “whether I am to be allowed to report Indian children under the guardianship of whites, unless it can be shown that the ‘guardian’ has been appointed by a ‘competent court.’”

It seems to me that the meaning of section 1858 of the school law is found by using the ordinary and popular signification of the word “guardianship,” i. e., *protection, care, watch*. The law undoubtedly intends to prevent any county from counting Indians who are for the time being residing therein as a tribe, or under the control of the Federal Government on reservations. But it would be contrary to the policy of the law to exclude such as you describe: individuals detached, not in a tribal condition, living in the families and under the care and protection of whites. These are or are liable to be, and should be, educated as such, and a *pro rata* of the school funds should be apportioned to them, and thereto they should be listed by the census marshals.

DEAR MISS—You favor of the 9th inst. is at hand. 1st. The State School Fund cannot be used for building under any circumstances. 2nd. School text-books cannot be purchased as apparatus, for the reason that they are not apparatus. 3rd. A district library is not limited to one dictionary. 4th. Trustees are to go by the list adopted by the County Board of Education. 5th. The County School Fund can, as you say, be used for the purpose of building a school-house. 6th. Whether you can be paid for teaching during vacation depends on whether the Trustees have contracted or will contract to pay you for such services.

DEAR SIR—If I rightly comprehend your difficulty it springs mainly from the addition to the grammar-grade text-books those necessary to meet the requirements of the "grammar-school course." Subdivision second of section 1874, Political Code, refers to *change* of text-books, and not to an original adoption, as I read it; and therefore does not circumscribe your action as a Board of Education in selecting those additional text-books necessary for the present purpose.

I would suggest that you give as long notice as possible for the additional text-books, and yet permit the adoption to be made in the month of June.

DEAR SIR—I do not see that section 1621 of the Political Code conflicts at all with section 18 of article xi of the Constitution. The latter forbids running into debt beyond the means of paying. Section 1621 is intended to secure an eight months' school in preference to other objects. The Boards of Trustees and County Superintendents will know the amount of funds belonging to the district for the year—what the school will cost for eight months, and the balance, if any remaining; and they may expend the balance in satisfaction of obligations which they entered into in view of that balance.

DEAR SIR—In answer to your question, "Is a young man who is thoroughly competent, being only eighteen years of age, eligible as Census Marshal?" I reply, No. Section 841, Political Code, reads: "No person is capable of holding a civil office who, at the time of his election or appointment, is not of the age of twenty-one years and a citizen of this State."

In answer to your second query I refer to subdivision *twelfth*, section 1617, Political Code, by which it appears that a duly called meeting of the electors of the School District is competent by vote (majority vote) to instruct the School Trustees in regard to the location or change of location of the school-house, and many other things. If a majority of the qualified electors of your School District so desire, they can change the location of the school-house to any chosen spot.

GENTLEMEN—Article xi, section 18, Constitution, provides that "no . . . school district shall incur any indebtedness in any manner or for any purpose exceeding in any year the revenue provided for it for such year." If the library fund is exhausted the Trustees cannot this year incur any liability or indebtedness for the year to come.

DEAR SIR—In regard to your question as to when a district will lapse: a district when it has an average attendance for three months of five pupils or less will lapse. No school, however, can have any school money apportioned to it unless it have ten or more census children, under the third subdivision of section 1858.

It has been held by this office that, as there is no direct provision of law in regard to the matter, the County Superintendent, being at the head of the School Department of the county and the government thereof, is the proper person to take charge of the property of a lapsed district.

Under section 1623, if there are any debts on contracts which were in excess

of the moneys to the credit of the district at the time they were entered into, the money to the credit of the lapsed district (if there is any such) is liable for such contracts. If the lapsed district has no money to its credit the debts cannot be paid.

DEAR SIR—In regard to your question as to what is to be done when the records are burned, my answer is, in accordance with your suggestion, to have them written out again by the teacher as soon as possible, and in as correct a manner as possible, while the matter is still fresh in the teacher's mind. In regard to your next question: under the third subdivision of section 1543, Political Code, it is the duty of the County Superintendent, upon the order of the Board of Trustees, to draw his warrant for all *necessary* expenses of the district. If the expenditures are *necessary*, and the order regular on its face, it will be your duty to draw the warrant. If they are unnecessary, you are not required by law to draw the warrant, and it would be improper for you so to do. If this were otherwise, a County Superintendent would be an officer without any discretionary power, and the law prescribing the power of County Superintendents shows such a theory to be unfounded.

DEAR SIR—Your favor of the 22nd inst. is at hand. Section 8 of article ix of the Constitution provides that no public money shall ever be appropriated for the support of any sectarian or denominational school, or any school not under the exclusive control of the officers of the public schools, nor shall any sectarian or denominational doctrine be taught, or instruction therein *be permitted*, directly or *indirectly*, in any of the common schools of this State.

Section 1672, Political Code, provides that no publication of a sectarian, partisan, or denominational character must be used or be made part of a school library, nor must any sectarian or denominational doctrine be taught therein. Any school district, town or city, the officers of which knowingly allow any schools to be taught in violation of these provisions, forfeit all right to the State or county apportionment, etc. Under the provisions of the State Constitution cited above, your decision is perfectly correct, and the trustees have the power to prevent the Treelock Band from using the school-house for any purpose whatever. Under the same provision in the Constitution, under the section of the Code above cited, and under several other provisions of law, it becomes a question as to whether it is not the duty of the trustees to prevent the use of the school-house for any other purpose than school purposes. A school-house was built for the purpose of being a place in which instruction is given in those subjects provided by law—in accordance with law, and for no other purpose. It was not built as a place for the worship of churches, for bands, nor was it built for other purposes not connected with education.

If through any means whatever denominational doctrines are taught indirectly in the building, it is the duty of the State and County Superintendent to withhold State or county moneys.

DEAR SIR—If the Trustees of — District entered into a contract with you, in accordance with the terms whereof you were to teach both before and after a vacation declared by them, and by an act of theirs prevented you from teaching after the vacation, they are liable to you for the term you were to have taught, after the vacation, according to the terms of the contract.

DEAR SIR—In answer to your letter I have this to say : No number of districts meeting could as such set up a high school, because they could get no State aid. The State apportionment is exclusively for grammar and primary schools. High schools must be supported by *local* funds. Two or more contiguous districts may unite and establish a "grammar-school course," under section 1663 as amended by the last legislature.

DEAR SIR—Your note of the 21st inst. is at hand. If the repairs referred to are *necessary* under the third subdivision of section 1543, it is the duty of the superintendent upon the order of the trustees to draw his requisition on the auditor.

Under section 1546, if there is sufficient money to the credit of the district, the County Superintendent can require the trustees to repair the school-building if no more than fifty dollars is expended for that purpose. Your second question is : "Where a new district is cut from an old one, have the trustees of the old district a right to give a part of the library books to the new district?"

At first sight, it would look as if the children who formerly had the privilege of the library, and who lose it by the formation of the new district ought not to lose such a privilege. When school is opened in the new district the Superintendent must, after payment of debts, divide the money in proportion to the number of children resident in each district. This statement would seem to lead to the same interpretation. Tending contrary to such a theory is the fact that the only thing which the law says shall be divided is the money; the further fact that the petition for formation of a new district is to the *Superintendent* of the county; that the only property divided is divided by the *Superintendent*, that the Trustees are not mentioned in connection with the matter. If the library was to be divided, other kinds of school property could be divided, and the law would in terms provide for such a division.

The parents or guardians by petitioning for the formation of a new district have lost the advantages of having a library in their own district; and I think this a case in which the maxim of law that "he who takes the benefit must bear the burden" will apply, and that the trustees cannot divide the library. And still another ground for this interpretation is the fact that immediately upon the complete formation of the new district it is as entirely distinct from the old as any other district in the county, and the trustees have no more right to give to it a portion of the library than they have to give a portion thereof to any other district.

DEAR SIR—There are no printed notices of the kind referred to in section 2 of the act to enforce the educational rights of children in the office of the Superintendent of Public Instruction. The law requires them to be printed at the expense of the district school fund. The "new law," section 1663, requires nothing new in regard to the grading of schools, save in those districts which shall elect to substitute the "grammar-school course" for the ordinary grammar grade; and even then it is also subdivided into four grades. The only difference is in the list of studies. The circular letter sent to you some time ago concerning the committee bill shows what additional studies are required, and the County Board of Education will prescribe the text-books. I would most gladly help you in this matter, but I do not see how I can do so better than by the circular letter referred to above.

DEAR SIR—Your note of the 28th inst. is at hand, in which you say, "As an old teacher and friend of education, I would most respectfully ask if it would be legal for the school trustees or the clerk thereof to subscribe for THE PACIFIC SCHOOL JOURNAL, or any other journal not designated as one of the library books by the County Board of Education, *and pay for it out of the public school fund*, as intimated in the May number of said JOURNAL. If Trustees have such power, then what superior have County Boards on that subject? Query—Would not such a use of the public funds be a crime (see sec. 72, Penal Code)?" In reply to your note, I have this to say: That to commit such an act knowingly and with intent to defraud would undoubtedly be a felony punishable by imprisonment (under sec. 18, Penal Code) not exceeding five years in the State Prison. There are one or two other provisions of the Penal Code bearing upon this point and to the same effect.

DEAR SIR—There is no provision of law from facts found by a County Superintendent in regard to a controversy between the Trustees of a district and a teacher teaching therein. From your letter, it would seem that you suppose that the rules applicable in courts apply to such a case, and further, that in case the Trustees do not "answer," you may have "judgment by default" entered in your favor; and you desire the Superintendent of Public Instruction to render a decision in the following words: "In the case of the Trustees of — School District, — County, Cal, withholding the salary of the teacher — for the week between April 1st, '83, and April 8th, '83, said teacher making an appeal to me in accordance with the school law, section 1699, and said Trustees duly notified of such an appeal, failing to answer, I decide that the said salary be allowed and said Trustees sign the customary order therefor upon the County School Superintendent."

In the first case, when an appeal is taken under the rules which you seem to assume to be applicable in such a case as this, no "answer" is made, and the law provides for no "default." Even if such a technical proceeding were permissible on your part, as taking a "default" against the Trustees, they might counteract the effect thereof by taking advantage of your notice of appeal, as it would be, under the rules which you must needs invoke in such a case, an appeal from nothing at all.

The decision which you ask the Superintendent of Public Instruction to sign would be equally worthless.

The former decision of this office upon the question was that "your rights under your contract with the Trustees depend upon the terms of that contract. If there was no agreement for a loss of salary for the time during which school might be suspended by order of the Trustees, you are entitled to receive pay for that time." This decision must still stand.

If the facts alleged in your letter are not controverted by the Trustees, they are bound by this decision. If the facts are controverted, it is beyond the jurisdiction of this office to pass upon them. The Superintendent of Public Instruction cannot say whether or not there was an agreement between the Trustees and yourself; nor can he pass upon the nature—unless it be its legal effect—of that contract; nor can he say that you have or that you have not performed your services in accordance with the terms of the agreement. Such matters can only be finally settled in a court.

As I have no uncertainty in my mind in regard to this question, it will be unnecessary for me to follow your suggestion and apply to the Attorney-General for information in case my mind is in doubt.

DEAR SIR—I herewith forward the opinion of the Attorney-General.

I agree with the Attorney-General that the Trustees of one district cannot prevent the Trustees of another district from receiving in their schools the children of the first district. But the first district—the district in which the children reside—will of course be entitled still to count the children as census children and to receive an apportionment on account of their residence in the district, just exactly as if they attended school in the district in which they reside. The latter part of the Attorney-General's opinion is to the effect that the district cannot receive an apportionment because of their average daily attendance, as they are not attending at all.

The following is his opinion :

“W. T. WELCKER, *Supt. Public Instruction.*

“DEAR SIR—In reply to your request of a recent date I have to say that in my opinion there is no way in which to compel the schools in — to refuse to receive pupils from the — district, and that the Trustees of the (last) — district have no claim for the attendance of children who actually attend the schools in —” (the first district).

Yours respectfully,

E. C. MARSHALL, *Attorney-General.*

HON. W. T. WELCKER.

My dear Sir—By article xx, section 18, of Constitution, the question seems to me to be fully answered. I think a woman can act as census marshal. I do not think the office of census marshal is an educational office.

Yours truly,

E. C. MARSHALL.

DEAR SIR—In looking over the records of this department I find that the opinion of this office in regard to the question as to whether a County Superintendent of Schools can be paid, over and above his salary as Superintendent, a compensation for his services as a member of the Board of Education, is in accordance with a decision formerly rendered by Attorney-General Hart.

The opinion of Attorney-General Marshall, sustaining the opinion of this office, has already been forwarded to you.

The following is the opinion of ex-Attorney-General Hart :

OFFICE OF THE ATTORNEY-GENERAL,
SACRAMENTO, CAL, July 17th, 1880.

HON. FRED. M. CAMPBELL, *Superintendent of Public Instruction.*

Dear Sir—The Constitution does not provide that the School Superintendent shall be a member of the Board of Education ; but, on the contrary, provides for two different departments to be filled by different officers, and the act making the Superintendent *ex officio* a member of the Board operates to a certain extent as a consolidation of the duties of the two offices in the hands of one incumbent. As Superintendent, he acts in one capacity ; as member of the Board, he acts in an entirely different capacity. As Superintendent, he cannot be forced by law to act in the matters of adopting text-books, or granting certificates, except in counties where there are no County Boards of Education. (See Constitution, sec. 7, art. 9.)

His election to the office of Superintendent elects him also to the office of member of the Board, and the duties which he performs as such member are no

part of his duties as, and are not performed in the capacity of, Superintendent. In this respect the case is not entirely unlike the case of *Love vs. Baehr*, 47 Cal. 364.

It results that the Superintendent as a member of the Board of Education occupies the same position with reference to fees and emoluments that other members of the Board do, and that section 1770 of the Political Code, as amended in 1880, which provides, in effect, that the Board of Supervisors shall allow to the members of the Board of Education a reasonable compensation for their services, includes, in the designation "Board of Education," the Superintendent as well as other members of that Board.

I am, dear sir, yours respectfully,

A. L. HART, Attorney-General.

HON. ADAIR WELCKER, *Deputy Sup't Public Inst.*

Dear Sir—The Superintendent of Schools is clearly entitled to compensation as member of the County Board of Education. By section 1768, Political Code, he is made a member of the County Board of Education. By section 1769, he is made *ex officio* secretary of County Board of Education. By section 1770, all the members of the County Board of Education are allowed a reasonable compensation. Nothing in the first two sections distinguishes the County Superintendent from the other members, or intimates that his service as secretary, though *ex officio*, is to be gratuitous.

Yours truly,

E. C. MARSHALL.



SCIENCE RECORD.

THIS RECORD is under the editorial charge of Prof. J. B. MCCHESENEY, to whom all communications in reference thereto must be addressed.

PROFESSOR BERTHELOT claims that the true element carbon is as yet unknown; that it must be of a gaseous nature, and that diamond, graphite, etc., are but states of the veritable carbon.

A RATHER remarkable experiment has recently been made in the north of Finland by Prof. Lendstroems, of Helsingfors, and which resulted in the artificial production of an aurora. At about 67° north he placed a net-work of copper wire, terminating in many perpendicular points on the top of two mountains, one of which is about 6,000 feet high. This net-work was connected with the earth at the bottom of each mountain. The result was that the atmospheric electricity attracted to the earth by the copper net-work formed an artificial aurora rising above 400 feet above the mountain.

By experimenting upon dogs, rabbits, and guinea pigs, Mons. Poincare has sought to determine whether petroleum vapor is liable to injure persons inhaling much of it. In an atmosphere resembling that breathed by most petroleum users, guinea pigs live only from one to two years, but the other animals appeared unaffected. He recommends, however, that the vapor be breathed as little as possible, attention being given to ventilation, keeping stock in closed vessels, etc.

IN an article published by Dr. R. Koch, it is asserted that the only substances worthy of the name of disinfectants are chlorine, bromine, iodine, mercuric chloride, and perhaps potassium, permanganate, and osmic acid. It has been found that spores of the bacillus of

splenic fever kept for many days in a 5 per cent. zinc chloride solution develop when placed in suitable nutritive liquids, and even when added to serum containing $\frac{1}{2}$ per cent. zinc chloride. The author expresses wonder how this salt should ever have been seriously regarded by respectable chemists as an antiseptic.

EDUCATIONAL INTELLIGENCE.

ALAMEDA COUNTY.—Professor Hilgard is spending his vacation with a party in Washington, Idaho, Montana, and Dakota, analyzing soils for the Northern Transcontinental Land Company.

In the faculty list of the Colleges of Letters and Science of the University, there are still two vacancies—the Mills Professorship of Mental and Moral Philosophy and Civil Polity, and the Agassiz Professorship of the Oriental Languages and Literatures. There is no active Professor of Mining. S. B. Christy is Instructor and William Ashburner is Honorary Professor of that important branch.

Principal J. B. McChesney of the Oakland High School is spending his summer vacation East.

There is great activity in school improvements in this county. Mission San Jose is building an addition to its school-house, costing \$1,800, that at Centreville will cost \$1,200, and other districts are making similar improvements.

The recently elected city superintendent of Alameda, Mr. D. J. Sullivan, is starting in to do excellent work, and is infusing new energy into the schools of that beautiful suburb of San Francisco. Mr. Sullivan was for some years a very successful teacher in the evening schools of the latter city.

The graduating class of the State University this year numbered thirty-five. The entering class bids fair to be the largest in the history of the institution. Over ninety have already passed the June examinations, and the August examinations are certain to pass at least fifty more. Under the administration of President Reid, the interest in the University has deepened and spread to the most remote parts of the State.

The Oakland High School graduated a class of thirty-eight students, of whom more than twenty will enter the University.

The Berkeley Gymnasium, George Bates,

principal, undoubtedly the most superior preparatory school on this coast, graduated twenty-eight students, of whom twenty-five took the University examinations. All passed creditably.

Prof. Josiah Keep has been re-elected principal of the Alameda High School. This is Prof. Keep's fourth year, and under his administration the school has taken rank among our best academic institutions.

SAN FRANCISCO COUNTY.—The Board of Supervisors have made their regular annual attack on the schools. It comes under the usual guise of retrenchment and reform. \$700,000 is the amount they allot for carrying on the department for the fiscal year 1883-'84, \$100,000 less than the amount required during the current year.

This is the smallest apportionment made during the past ten years, and as the school population has increased five per cent. during the past year, the Board of Education finds itself in a most serious dilemma.

Miss Cleveland, principal of the Rincon School, has taken a leave of absence for several months, in order to recover her health, broken by her unsparing efforts in the management of one of the best grammar schools of the city.

Director Danielwitz of the Board is the author of two resolutions, highly commendable in themselves, and calculated, the first to improve the efficiency of the department, the second to improve the moral tone of our boys.

The former resolution prohibits principals from reprimanding or criticising the methods of teachers in the presence of their pupils.

No competent principal will make such criticisms; there are only too many, however, who have got into the habit.

Director Danielwitz's second resolution is to prohibit the vile and almost universal habit of cigarette-smoking by the school children of the city. The resolution will

inaugurate a vigorous campaign against the practice.

One of the most useful members of the San Francisco Board of Education is Dr. C. D. Cleveland, who is also the managing editor of the *Daily Examiner* of this city. Dr. Cleveland is a gentleman of wide culture, a fine classical scholar, and a warm friend of our American system of popular education.

Like many of our ablest public men, Dr. Cleveland at one time was a teacher.

So the ideas on educational methods and systems in which his mind abounds, are the fruits of experience as well as of theoretic study.

Dr. Cleveland's management of the *Examiner* is worthy of the highest praise. Bright, newsy, and full of living interest, it never descends to scurrility or personal abuse, nor loses a high tone of respectability. The *Examiner* under its present conduct shows how a daily newspaper may be spicy and yet clean.

MONTEREY COUNTY.—Prof. W. H. Housh, late principal of the San Juan school, has been elected principal of the Salinas schools and city superintendent. This is a decided acquisition to Monterey County.

CONTRA COSTA COUNTY.—The Nortonville school in this county is a model country school, and fortunate in every respect.

First a corps of fine teachers, A. M. Phalin, principal, and Misses Helena Callsen, Nettie Thurston, and Emma L. Thurston, assistants. Then a good school-house, with ample accommodations for the 180 enrolled pupils.

Ample funds enabling the trustees to keep school ten months per year, pay Principal Phalin \$100 per month, and his teachers in proportion.

Great credit is due to Hon. P. B. Cornwall of San Francisco, president of the Black Diamond Coal Mining Co. (near whose mines Nortonville is located), and to Mr. Morgan, Superintendent of the company and clerk of the Board of Trustees, for securing the funds to bring about such excellent facilities for education.

At the suggestion of these two gentlemen, the coal miners are assessed fifty cents on each \$100 of their wages for school purposes. This supplements the usual State and county

taxes, and enables Supt. Morgan and the other trustees to secure fine teaching talent, and all the other necessary adjuncts of a good school.

The average attendance at the school is very high; the pupils take great interest in their studies; the graduating class of this year remain in the school and take the post-graduate course, which will fit them for the University.

We commend to our large landowners and philanthropic men generally, who are employers of many laborers, this example of Messrs. Cornwall and Morgan.

SANTA CLARA COUNTY.—At a meeting of the Board of Supervisors of this county, on motion, the election of two members for the County Board of Education was declared in order. City Supt. James G. Kennedy, G. L. Wells, and F. H. Gould were placed in nomination. Kennedy received seven votes, Gould six, Wells one. James G. Kennedy and F. H. Gould were declared elected.

The Board of Normal School Trustees at their last meeting filled the principalship of the Los Angeles Normal School by the election of Prof. Ira More, late of the San Jose School.

This was an appointment eminently fit to be made. Prof. More ranks among the ablest educators of the Pacific Coast, has had a wide and highly successful experience in Illinois and Minnesota Normal schools, has remarkable executive ability—in a word, is pre-eminently the right man in the right place.

HUMBOLDT COUNTY.—W. F. Clyborne will continue in charge of the Arcata schools, assisted by Arthur Mock and Mrs. Jennie Clyborne.

Mr. Geo. Underwood and J. W. Jameson will continue in charge of the Rohnerville schools.

Four new school districts have been organized in this county during the Past four months.

Through the efforts of the primary teacher of the Slide school, Miss S. Freeman, the school building is soon to have a fine new bell.

Prof. Max Lipowitz, formerly of Del Norte County and principal of the Crescent City school, is teaching a private school in Eureka.

EDITORIAL CORRESPONDENCE FROM COUNTY INSTITUTES.

LOS ANGELES.

The fame of Los Angeles as an earthly paradise is widespread ; wherever the name of California is heard, there the City of the Angels is recognized as one of the brightest jewels in her crown of perennial spring. And when the writer first saw her, embowered in groves of glossy green, with golden fruit rendered brighter by contrast with foliage, on a clear, California April morning, the picture was a very garden of the Hesperides.

Oakland, so appropriately named ; San Jose, the Garden City encompassed by masses of evergreens ; Sacramento, in a wilderness of oak and willow, cottonwood and poplar—sink into insignificance beside the more tropical wealth of foliage of these semi-tropical shades.

But it is not to a description of the surroundings of Los Angeles, however glowing their beauties, that this article is to be devoted. The occasion of our presence here was the annual gathering of the teachers of the county at the Institute of 1883.

The assembly was convoked in the large hall of the Los Angeles Branch State Normal School by Supt. J. W. Hinton. City Supt. Guinn was elected vice-president, and Mr. W. S. Reavis secretary.

There were in attendance more than one hundred and sixty teachers, comprising some of the best talent in the State. This body furnished another illustration of the old adage, "As is the teacher so is the school." Under the able and scholarly administration of Supt. Hinton, aided by City Supt. Guinn, Profs. Smith of the City High School, Hughes, Moores, Mrs. Chloe B. Jones, and others, Los Angeles County is distinguished not merely for beauty of scenery, salubrious climate, and wealth of production, but for her excellent schools. Of course, there is still room for improvement, but the signs of progress are plain ; there is general activity and enthusiasm.

The proceedings of the Institute were interesting, the local teachers contributing largely to the program with essays, and some excellent class exercises exemplifying methods. Mrs. Kate Smith Wiggin came from San Francisco and gave some of her delightful and beneficial missionary talks on kindergartening. She was listened to with unalloyed pleasure. Prof. Guinn read an essay, a portion of which is published in this month's JOURNAL. It is worth reading, and then worth careful reading again. Mrs. Enderlein gave a class exercise to illustrate her method of language teaching, and Miss Prescott gave an exercise somewhat similar, but indicating considerable originality, which proved that some general system of language training has been introduced into the Los Angeles schools in lieu of much unpractical and resultless technical grammar. A class placed at the blackboards by Mrs. ——— illustrated some excellent methods of teaching drawing.

Excellent essays were read by Prof. J. C. Flatt, vice-principal of the Normal, and Rev. J. W. Ellis, both of which were requested for publication. The State Supt. was present a part of the session, and read an evening paper. President Reid of the University attended the last day, and spoke of the provisions of the "Camenetti Bill," The editor or the JOURNAL read an evening paper.

VENTURA COUNTY.

About thirty miles by rail to Newhall, and thence fifty-five miles by stage, through the beautiful valley of the Santa Clara, bring us to the old town of San Buenaventura. Here is one of the oldest mission churches of California, founded by Padre Junipero Serra himself, and the town has still about it some of the old quiet and drowsiness and conservatism of pre-American times.

Though there is much good land, a delightful climate, and means for irrigation when rainfall is scant, the county is but sparsely settled, the land being generally held in large ranchos, according to the orthodox Spanish custom.

The number of teachers in this county is small—not over thirty-five; about thirty appeared at the Institute.

Those present took an active interest.

Among the teachers of this county are Charles M. Drake of Santa Paula, F. S. S. Buckman, and Mrs. M. E. Chace of San Buenaventura.

Mr. Drake is so well known wherever the *JOURNAL* goes that no further mention of him here is necessary. He read an excellent paper on the duties of parents in the education of their children at one of the evening sessions. Mr. Buckman, formerly Superintendent of this county, is now principal of the San Buenaventura school. He is doing a fine work here, and making great improvement in the work of his classes. In this he is ably assisted by Mrs. M. E. Chace, formerly one of the ablest primary principals in San Francisco, who now has her home in Ventura. Mrs. Chace is an excellent scholar and a born teacher. She is the kind of woman needed at the head of a large school, where her ability and high administrative powers would have full scope.

Among the younger teachers especially worthy of mention were Misses Minor and Redman. Miss Minor gave an excellent exercise in spelling, bringing her class all the way from Santa Paula to show how she taught it, and that she taught it well.

School matters in this county have been very quiet, but under the new Superintendent, Mr. C. E. Meredith, there is every promise of great improvement. Supt. Meredith is a young man of genial manners, good culture, energetic and industrious habits, and sound educational views.

He is devoting himself exclusively to the close supervision and advancement of the schools, and we are certain his work will show early and satisfactory results.

That his efforts are already meeting with appreciation and at least partial co-operation, is shown by the recent action of his County Board of Supervisors in adding \$400 to his annual salary. With such leaders as Drake, Meredith, Mrs. Chace, and Buckman we have great hopes of the educational future of Ventura County.

CONTRA COSTA COUNTY.

The sixty teachers assembled in the Grammar School building of the lovely village of Martinez, on the morning of May 3rd, showed in their general appearance intelligence, culture, and ability.

A more intimate acquaintance proved that Supt. A. A. Bailey has shown his eminent fitness for his high position by selecting and retaining in active service a body of teachers not equaled in many parts of the State, and unsurpassed even in Los Angeles or Alameda or Santa Clara or San Francisco. The leading teachers of this county have a well-earned reputation over a considerable portion of the State. There is W. H. Young, principal of the Clayton school and president of the County Board of Education, a thorough teacher and a high-minded gentleman; A. M. Phalin, formerly Superintendent of Sierra County and now principal at Nortonville, which under his efficient training is a model country school; also Alfred Thurber, for many years Superintendent of this county, as popular now as ever, and doing excellent service in the principalship of the Pacheco schools, and assisted with equal ability by his wife (formerly Miss Julia M. Ashley of the Normal); Mr. Seaman principal of the Martinez school, who, aided by such teachers as Miss Porter, a bright and capable young teacher, merits the high appreciation in which the people of that village hold him; also Mr. Shaw, a recent graduate of the California Normal School, who does credit to his Alma Mater, and reminds us constantly of Prof. Norton; Messrs. Sears, Menifee, Seaman, Cornell, Lyon, and the Misses Thurston (recently from Kansas and full of the new methods, energy, and originality of the West), Misses McMahan, Mills, and Callsen, compare favorably with our best city teachers; likewise Miss Emma H. Hilton, returned from a two years' trip to Europe with a mind enriched by foreign travel and study, already one of the brightest and most successful teachers in our State, now full of new ideas and added vigor; and so on with others too numerous to name, for the list would include nearly the whole sixty-odd teachers of Contra Costa County.

The exercises of the Institute were marked by variety and interest. Mr. Cornell of San Pablo, gave some excellent lessons in calisthenics; Miss N. R. Thurston explained for the satisfaction and instruction of all her method of teaching penmanship; Miss Mills read an essay on Art in the Schoolroom, so good that we mean to present it to our readers through the JOURNAL; Miss McMahan gave an entertaining class exercise in reading; Miss E. H. Miller illustrated her way of teaching music—very good; E. A. Seaman explained clearly the Word Method in Reading; Theodore I. Shaw read a scholarly essay on Power of our State developed by Mental Culture, and C. A. Meniffee a bright paper on Educational Blunders. Prof. Knowlton was present the last day of the Institute, and did some of his usual good work. The editor of the JOURNAL was frequently down on the program. On the whole, this was the most enjoyable Institute attended by us for some years.

EL DORADO COUNTY.

The Institute in this county, held April 25th, 26th, and 27th, was in many respects a counterpart of that in Contra Costa. Supt. C. E. Markham is the same sort of official, energetic, urbane, cultured, and efficient, as are Hinton of Los Angeles and Bailey of Contra Costa. There are not so many teachers here as in either of the before named, but the proportion of first-class instructors is equally large. It is but necessary to name ex-Supt. Munson, a gentleman of thorough scholarship, an original investigator in educational methods, and a teacher well up with and even ahead of the times.

In this county, too, we met Mr. George A. Richardson, a successful teacher whose articles in the JOURNAL on Compound Numbers have attracted wide attention, and have been republished in some of our Eastern exchanges. He favored the Institute with remarks and an excellent class exercise on reading. Mr. M. H. Gates, a leading teacher of whose work we have had occasion to speak commendingly, explained and urged the teaching of the Metric system; Miss Alma Rees, a bright young teacher, trained in one of the Minnesota State Normal Schools, spoke pointedly and intelligently on Primary and Intermediate Arithmetic; and a fellow-graduate, Mrs. Cora Gage, sustained the reputation of the school by some highly practical suggestions on Oral Grammar. Both the matter and manner of Mrs. Gage's remarks proved her a teacher of much more than ordinary ability.

Methods of teaching arithmetic were presented by John Lorain and P. D. Smith, two successful teachers; the secretary, G. W. Anthony, read an excellent essay on "The Duties of Parents with reference to the School"; Edward McKenna, a new teacher, presented in an acceptable manner a paper on "The English Language: What it is and how to master it"; and Prof. Walter H. Knapp of the Placerville Academy, gave one of the most enjoyable lessons on "Chemical Affinity," illustrated with plenty of good apparatus, that we have ever listened to. On the last day Prof. G. P. Tindall, of the Placerville Academy, which, under his charge has attained high rank among the best academies, public or private, of the coast, gave an exercise on the "Use of the Terrestrial Globe in the Study of Geography."

On the last evening, Friday, there was a social reunion of teachers and citizens of Placerville, where all enjoyed the kind hospitalities of Superintendent Markham and his estimable wife.

Owing to the illness of Mr. Louis H. Valentine, principal of the Placerville grammar school, a well-trained and bright young teacher—one of whom we are confident more will be heard one of these days—the Institute missed hearing an essay on "U. S. History: What to Teach and How," which we know would have been of service.

SAN BENITO COUNTY.

This is still a small county, with many obstacles in the way of a thorough and efficient school system. That the schools are progressing and constantly improving is due to the conscientious care and high competency of Supt. J. N. Thompson. This gentleman is a thorough schoolman; and as before stated in the JOURNAL, the present system of partially

apportioning school moneys on the basis of actual attendance was originally his conception.

The Institute held in Hollister, May 17th, 18th, and 19th, was attended by Prof. Norton of the Normal, Prof. Knowlton, and the editor of the JOURNAL.

Talks were given on methods of teaching, the Institute joining in the discussions, and taking an active interest generally.

Among the leading teachers of this county are Mr. Leggett, who has made the Hollister grammar school one of the best in southern California; W. H. Housh of San Juan, a superior young teacher, who has just been called to the higher position of principal and superintendent of the Salinas schools—a loss to San Benito county as it is a gain to Monterey; Mr. T. H. Slaven an experienced and successful instructor, Mr. Patterson, Mr. Clay, Misses Eckhardt, Tyus, and Conover, and others whose names we do not now recall.

While the condition of the schools in this county is good, yet, with such a thorough educator as Supt. Thompson they would be much better but for the penny-wise parsimony of the County Supervisors.

The salary paid to the superintendent is not adequate to enable him to confine himself exclusively to the duties of his office; he is obliged to teach for the greater part of the year; hence the schools fail to get that constant supervision they would undoubtedly receive were matters otherwise.

We trust San Benito will wheel into line with other counties, who now are in advance because they are willing and do pay a *quid pro quo* for supervision.

NEWS RECORD.

Foreign and Domestic.

The spring freshets are doing much damage in Vermont, New Hampshire, and portions of the West and the Provinces. The rivers are rising rapidly, and bridges, dams, and railroads are being washed away.

For the nine months ending March 31st, 1883, the immigration into the United States has aggregated 440,327.

Advices from Arizona state that Gen. Crook crossed the frontier with his command on April 26th, leaving guards with orders to permit no one bearing orders for him to follow. His present whereabouts are unknown. The Indians are believed to be in the Sierra Madre, forty miles from Guadalupe, and the Mexican generals are moving on them by way of Monterey. No news has been received from Crook since he crossed the border, and there is some anxiety on his account.

For participation in the Phoenix Park murders, Joe Brady was hanged in Dublin at 8 o'clock on the morning of the 14th. May 17th Daniel Curley, another of the Phoenix Park assassins, was hanged at Dublin.

Postmaster-General, T. A. Howe died last month. His successor is Walter Q. Gresham, of Indiana.

Fitzharris, the Dublin car-driver, was convicted on the 16th as accessory after the

fact to the Phoenix Park murders, and sentenced to life penal servitude. The next day James Mullet and five others pleaded guilty of conspiracy to murder, and five were sentenced to ten years and Thomas Doyle to five years penal servitude.

The town of Miragoane, on the southern coast of the bay of Gonaives, was captured, without opposition, on the 27th, ultimo by a detachment of 103 armed men, under command of Boyer Bassalay and General Barlow. Up to the morning of the 29th no attempt had been made to dislodge the revolutionists by the government.

Four thousand Chinese or Annamese troops attacked Honoi, the capital of Tonquin, March 20th, but were repulsed by the French. France is determined to establish herself at Tonquin, and asks the king of Annam to recognize her protectorate over his dominions. She may meet with hindrance in carrying out this project, however, for the British foreign office has been informed that China intends to oppose a French protectorate over Tonquin.

A royal decree is published in the official paper, recognizing as a national campaign the expedition of Garibaldi against Rome, during which the battle of Mentana was fought.

Great forest fires raged in New Hampshire and Vermont on May 21st.

The governments of New South Wales, Victoria, and South Australia have approved the annexation of the island of New Guinea to Queensland.

The Senate of Madrid has provided for trial by jury, being the first introduction of that system in Spain.

Deadwood, Dakota, was partially washed away by a flood.

The Marquis of Lansdowne has been appointed Governor-General of Canada, as the successor of the Marquis of Lorne.

A terrific gale swept over Lake Michigan, causing untold destruction of life and property.

On May 15th, a treaty of peace was signed and confirmed between Chili and Peru — The Pope of Rome in a circular to the Irish bishops has condemned the Parnell movement.

The general advance of the Cree Indians into Montana was stopped by General Ruger in the Northwest Territory.

On May 16th, the city of Samarain, Russia, was visited with a conflagration which destroyed nearly the entire city.

The Pekin Government has decided to establish a consulate in Chicago to protect the subjects of the Celestial Empire.

A tornado caused great destruction in Denison, Texas, in May.

A disastrous cyclone swept over a portion of Kansas City, Mo., Sunday, demolishing a vast number of buildings and doing much other damage. Some fatalities are reported, and the value of property destroyed is estimated at hundreds of thousands of dollars.

Amasa Stone, the founder of Adelbert College, and prominently connected with railway and iron interests throughout the country, committed suicide at his home in Cleveland, O., May 11th, while temporarily insane.

The Apache Indians have been defeated in the Sierra Madre Mountains by Colonel Torres. Nothing has yet been heard of General Crook's expedition.

A revolution was suppressed by the military at San Salvador on the 16th ult.

Affairs in Ecuador are in a critical condition. Business at Guayaquil is suspended, the streets were in possession of armed troops, and the rebels at last accounts were nearing the city.

Educational.

Oberlin College, Ohio, well known as the college which bore the brunt in the anti-slavery struggle, and the first to open the way for the higher education of women, will celebrate its fiftieth anniversary on the fourth of next July. The "Jubilee Celebration" will bring together a host of graduates—they number more than two thousand—and many distinguished men, aside from

her own alumni, who are the friends of education and reform. It will be, in fact, a kind of review of our educational history for the past fifty years, and hence an affair of unusual public interest.

William E. Anderson, principal of the Fifth District, has been promoted to the superintendency of the Milwaukee schools, in place of James McAlister, gone to Philadelphia. Mr. Anderson is reported a good school man.

The Northern Illinois Teachers' Association held a meeting at Elgin, on May 5, and had a good attendance. The chief addresses were by Col. H. C. Forbes of Polo, and Col. F. W. Parker, the former speaking on "Inertia," and the latter on "What immediate steps shall be taken to adapt our school work to the demands of the times?"

At a recent meeting of the Board of Trustees of the State Normal School at Millersville, Dr. Edward Brooks tendered his resignation as principal, to take effect in July next. This gentleman has been connected with the school for the past twenty-eight years—eleven years as professor of mathematics, and seventeen as its principal. Dr. Brooks is eminent as a writer, being author of an excellent work on teaching, of a series of arithmetics, an elocution, and an unrivaled work on the "Philosophy of Arithmetic."

The Chicago Board of Education, at the request of the superintendent, has, for the past two years, permitted pupils to pass from each of the grammar schools of the city to the high school upon the recommendation of the principal, without examination. The JOURNAL takes some credit to itself for starting this movement in California. In Vol. IV., page 232, attention was first called to the abuse of written examinations. In Vol. V., the above plan was suggested. It was almost immediately adopted in Sacramento and some smaller places. In San Francisco, it was partially adopted; the method being to promote about one-fourth of each class "honorarily," one-fourth "on recommendation" of the teacher and principal, and examine the rest.

The average salary of teachers in France is \$260. Only 673 men and 198 women receive more than \$500 yearly.

The German Union in Prague has organized vacation colonies of from 12 to 18 children, which spend four weeks in the country.

The state and town government of Sweden which is not a rich country, raise \$2,800,000 for education. Not only are common and high schools supported, but academies are established in connection with the universities of the small towns Lund and Upsala, as well as in Gothenburg and Stockholm. The "Academy Association of Stockholm" has, since 1869, provided the capital for the academy in that city. \$450,000 have already

been contributed; the city will supply \$10,000 annually for six years; 15,000 volumes have been presented for a library. The city already has a medical college, with a scientific and philosophical faculty.

The Spanish Government is doing something for primary schools by first issuing decrees. Testimonials of ability from women teachers are required. For a time inexperienced teachers may be appointed until the Association for the Protection of Primary Schools can provide trained teachers, whom the Minister will then appoint. A course for such teachers will be organized in the Madrid Normal School. This is to give (1) the elementary notions of physiology and psychology in their relation to the education of little children, the leading principles of Froebel's methods, and accounts of the organization of primary schools in other countries; (2) the elements of the natural sciences, with peculiar reference to instruction about objects, and the adaptation of these sciences to handicrafts, horticulture, and games; (3) universal principles of morals and right, according to a similar method; (4) the Spanish language, with exercises in speaking and writing; (5) singing; (6) French; and (7) practical exercises in all departments, both in the class and with the pupils in the training-school.

New Jersey took the prize at the school exhibits at the Centennial in 1876, and she has a very admirable school system, although, out of 343,789 pupilage children, about 90,000 of them attend no school at all. The teachers are paid \$56.96 a month for males and \$33.41 for females, and the schools are kept in operation nine months of the year in each of the 1,300 districts, in which there are 1,577 school-houses. Some of the teachers have taught in the schools twenty-five, forty and fifty years. Last year New Jersey spent over \$2,000,000 on her common schools.—*N. Y. Sch. Journal*.

Chauncey Rose, a rich bachelor of Terre Haute, Ind., who died a few years ago, provided in his will for a grand school of technology in that city. A splendid edifice and complete workshops were built some time ago, and on March 7th the school was formally opened with a class of twenty-five students selected by competitive examination from forty-five applicants. Charles O. Thompson, eminent in his profession, from Worcester, Mass., is president. The press report of the State remarks: "This event is one of the most important in the history of education in this State, the institution being the first of the kind established in the West. The institution, in addition to the buildings and property, has, according to the *Minnesota Trade Journal*, an endowment fund of near \$500,000, left to it by its founder at the time of his death in 1878."

The annual report of the Commissioners of Education of New York City for the year

1882 says that the school population continues far in advance of school-house accommodation and that the progress which might have been made in the year 1882 toward closing the gap was prevented by the Board of Estimate and Apportionment, which appropriated for the school year \$3,500,000—the Board of Education having asked for \$3,836,925. The effect of this reduction was to compel the School Commissioners either to reduce the salaries of teachers or to stop building new school-houses, and they chose the latter alternative. The report shows that the average cost for teaching pupils in grammar schools was, exclusive of special teaching, per scholar, \$32 38; in the primary schools and departments, \$14 24; in the Normal College, \$64 95; in the training department of Normal College, \$21.74; on the school ship St. Mary's (nautical school), \$274.18; in the evening high school, \$18.07; and in ward evening schools, \$11.59. We commend these figures to the attention of those penny-wise economists in California, who are forever harping on the cost of the schools here. The San Francisco Board of Supervisors should note that these figures are in excess of the amount demanded by the Education Board, and that the cost of instruction in San Francisco will bear raising rather than reduction.

A fair notion of a few of the leading ideas of the Terra Haute school may be obtained from the following extracts from President Thompson's opening address:

"The Almighty makes superintendents and leaders of men—no school can. But the training required for a superintendent must be that of his subordinates. All the best experience of the world sanctions this rule. A superintendent who has not had the training of the shop is as useless as Achilles without his weapons; he may seem and assume to direct and to lead, but he does not. On the other hand, the man who attempts to lead without natural leadership is as useless as the weapons without Achilles."—*Scientific American*.

The New York Trade School at 67th street and 1st avenue, New York City, closed its first session Friday evening of last week. During the past five months there have been four classes in session, on Monday, Wednesday, and Friday evenings. These classes have been attended by over one hundred young men, many of whom are already engaged at their respective trades. The trades taught are bricklaying, fresco-painting, plumbing, and pattern-making for molders and machinists. These classes are in charge of first-class practical contractors, who give the most simple lessons in their respective trades. Next season it is the intention of the founder to open classes in the afternoon at three o'clock in addition to those already formed. Another brick building is now being erected by members of the bricklaying class on the ground. This build-

ing is thirty-one feet wide and seventy-two feet deep. It will be used for the classes in plastering, wood-carving and stone-cutting.—*N. Y. School Journal.*

The Board of Education of Brooklyn took up the appropriation of \$870,878 for the teachers' salaries. For new primary school buildings \$210,000 was appropriated. Dr. Doane said: "The opening of the bridge will bring a vast influx into the city. The benefit from the bridge will be negative unless this Board provides ample accommodation for the school children." The item of \$150,000 for new building for the Central Grammar School, was adopted by a vote of 16 to 7.

A crusade against the cigarette has been started among the children of the public schools of Philadelphia. One of the principals has called the attention of the Board of Education to the subject, in which he says that, of the 50,000 pupils in the public schools of the city, a large proportion use tobacco in various forms; and that the habit has increased to an alarming extent since the cigarette was instituted. A short statement of the physical and mental disorders produced in children by the use of tobacco has been printed and posted on the inside of the cover of every text-book used in one school. The association of male principals has approved his letter to the board, and an energetic campaign on that line is the expected result.

From the following it will appear that conservative Philadelphia is, at last, getting out of the slough of aimless and undirected work in which her schools have so long wallowed:

Some months since, at the application of the Board of Control, the City Council of Philadelphia voted an appropriation of \$15,000 towards defraying the expenses incident to professional supervision of the schools. It was hoped at that time that the services of Col. F. W. Parker, of Quincy, Massachusetts, could be secured. But the Cook County Normal School, at Chicago, had, a short time before, made him an offer of \$5,000 per year, with satisfactory conditions as to the management of the school, which position he accepted.

At a meeting of the Philadelphia Board of Education, held March 13th, the Special Committee of Seven appointed under resolution of April 11th, 1882, reported as follows:

After a careful, thorough, and impartial consideration of all the names presented to the Committee, and having regard to the literary attainments, knowledge of educational methods, experience in the management and superintendence of all grades of schools, as well as the recognized standing in the profession of the respective persons, your Committee has unanimously concluded to submit to the Board the name of James

MacAlister, at present Superintendent of Schools in the city of Milwaukee, as a man whom they believe to be thoroughly qualified for the office of Superintendent of the Public Schools of the First School District of Pennsylvania.

The Committee, therefore, recommends the adoption of the following resolutions:

Resolved, That James MacAlister be and he is hereby elected Superintendent of the Public Schools of this District.

Resolved, That the salary of the Superintendent shall be \$5,000 per annum.

The resolution fixing the salary at \$5,000 was adopted after prolonged discussion, and Mr. MacAlister was formally elected by an almost unanimous vote.

The late legislature of New Jersey passed an act entitled, "An act to prohibit the sale of cigarettes or tobacco in any of its forms to minors." The act has been approved, and it is now an offense to sell tobacco in any form to a boy or girl under sixteen years of age, punishable by a fine of twenty dollars.

The next session of the University Normal School of North Carolina will be held at Charlotte, commencing June 21st, and closing July 25th. State Supt. Newell, of Maryland is to be the superintendent. The ensuing meeting of the State Association of Superintendents, to be held at Chapel Hill, July 4th, is much talked of.

The "no recess plan," now on trial in many cities, has been in use in the city of Adrian, Mich., for the past ten years. The plan was borrowed from Kalamazoo, where it had been adopted by Prof. Putnam, now of the State Normal School, and was commended to the Adrian School Board by arguments that have been put forward by the Rochester authorities. The results of the ten years' trial in Adrian have been favorable in all respects, and this plan of school-management cannot with propriety be called an experiment.

The new compulsory education law of Rhode Island requires that every child between the ages of seven and fifteen years shall have sixteen weeks of school each year. No child under twelve is to be allowed to work in any factory, and no one under fourteen who cannot write his name, age, and residence, or read some part of the State Constitution.

Arunah Huntington, an eccentric Canadian, left \$200,000 to be divided between the public schools of Vermont. Each district will receive about \$10, which will be of little service in advancing the cause of education.

The schools of Buffalo have used the same text-books for twenty years. There is a prospect that a change will be made. Too frequent changes are a nuisance and a detriment to the schools, but this is carrying the opposite practice to an extreme.

The special committee of the Board of Education of New York City have reported in favor of an aggregated increase of \$27,000. This means a frank reversal of the policy to which that body was recently committed when it proposed to make up for the reduction by the Board of Estimate and Apportionment by taking it all from the teachers.

The report of the City Superintendent of New York City is always a document that will be read with interest. The daily average attendance of pupils in the public schools is 125,661. The number of teachers is 3,340.

H. S. Tarbell has been re-elected, and so next fall will enter upon his sixth year as Supt. of the Indianapolis schools. He continues to do excellent work, and his salary remains at \$3,000.

General.

On and after October 1st, 1883, letter postage will be uniform at two cents for letters to any part of the United States. On and after July 1st, 1883, money orders for \$5 and under may be obtained for three cents. The order will be payable to bearer, and will be good for three months from date of issue; after that time the holder can get par value only by applying to the Department in Washington. On the same date the rate of money orders on all sums will be changed, and not exceeding \$10 be procurable for eight cents, and from that to \$100, the rate increasing up to 45 cents.

Sir Charles W. Dilke, Mr. W. Mattieu Williams, and other observers think that a tendency exists among Caucasian races to acquire in America the red Indian type of physiognomy. The change is believed to be due to the dryness of our climate; and evidence is given to show that even a temporary sojourn in this country may cause Europeans to become thin, lank-jawed, and sallow—a state which Mr. Williams terms “acute Americanists,” and which soon disappears after recrossing the Atlantic. A comparison of the family portraits at the house of the late George Combe, in Edinburgh, proved to the satisfaction of all present that the descendants of members who had emigrated to America a generation before displayed a deviation of feature from the family type toward that of the best examples of “the noble red man.” Mr. Combe seems to have shared Mr. Williams’ opinion that such deviation is general among the descendants of early English settlers.

The Warden of the Nevada State Prison says he believes that ninety per cent of his convicts have become what they are through drink. It would be interesting to know what portion of the people’s funds goes to pay for the punishment of crime, and what for the support of pauperism, as the direct result of the liquor traffic in California.

Prof. Huxley advocates the use of the Bible as a reading-book in schools, in lan-

guage of unusual warmth, which may well surprise those of his critics who charge him, rather hastily, we think, with “materialism” and “atheism.”

“I have always been strongly in favor of secular education, in the sense of education without theology; but I must confess I have been no less seriously perplexed to know by what practical measures the religious feeling, which is the essential basis of conduct, was to be kept up, in the present utterly chaotic state of opinion on these matters, without the use of the Bible. The pagan moralists lack life and color, and even the noble Stoic, Marcus Antoninus, is too high and refined for an ordinary child. Take the Bible as a whole; make the severest deductions which fair criticism can dictate for shortcomings and positive errors; eliminate, as a sensible lay teacher would do if left to himself, all that is not desirable for children to occupy themselves with—and there still remains in this old literature a vast residuum of moral beauty and grandeur. And then consider the great historical fact that, for three centuries, this book has been woven into the life of all that is best and noblest in English history; that it has become the national epic of Britain, and is familiar to noble and simple, from John-o'-Groat's House to Land's End, as Dante and Tasso were once to the Italians; that it is written in the noblest and purest English, and abounds in exquisite beauties of mere literary form; and, finally, that it forbids the veriest hind who never left his village to be ignorant of the existence of other countries and other civilizations, and of a great past, stretching back to the farthest limits of the oldest nations in the world. By the study of what other book could children be so much humanized, and made to feel that each figure in that vast historical procession fills, like themselves, but a momentary space in the interval between two eternities, and earns the blessings or the curses of all time, according to its effort to do good and hate evil, even as they also are earning their payment for their work?”

Personal.

State Supt. of Schools Hon. Wm. B. Ruggles shows his appreciation of the services of the corps of State Institute Conductors Professors Johonnot, Lantry, Kennedy and French by retaining them in office. It would probably be impossible to find four men who would fill these positions so profitably to the teachers. They understand the work not only, but seem specially fitted for it. They are paid only \$40 per week — *N. Y. Sch Journal*.

Supt Ruggles is a politician and not an educator, but his action shows him possessed of sympathy with the schools and good judgment. What a pity it is that all our school officials haven't equally good sense!

LITERARY NOTES.

The June number of the *The North American Review* opens with an article by Joseph Nimmo, Jr., Chief of the Treasury Bureau of Statistic, on American Manufacturing Interests. Should this author's advocacy of protective legislation prove distasteful, the reader finds the needed corrective in an article by the Hon. Wm. M. Springer, on Incidental Taxation, which is an argument for Free Trade. D. C. Gilman, President of Johns Hopkins University, writes of the Present Aspects of College Training. Edward Self presents some weighty considerations on the Abuse of Citizenship. Prof. Isaac L. Rice criticises some of Herbert Spencer's Facts and Inferences in Social and Political Science, and Christine Nilsson contributes A Few Words about Public Singing. Finally there is a symposium on The Moral Influence of the Drama, the participants being, on the one side, the Rev. J. M. Buckley, well known as an opponent of the stage; and on the other, John Gilbert, the actor; A. M. Palmer, theatrical manager; and William Winter, dramatic critic. 50 cents a number; \$5 a year. Published at 30 Lafayette Place, New York.

Several of the pictorial features of the June *Century* are of uncommon interest, like the frontispiece portrait of Tennyson after Woolner's bust, and the other full-page picturers in the profusely illustrated paper by Edmund W. Gosse, on Living English Sculptors; also Severn's sketch of Keats in his last illness, accompanied by a sonnet by Miss Edith M. Thomas, and a portrait of the artist-friend Severn. Of descriptive interest, beside, are the sixteen or seventeen cuts which reinforce H. H.'s concluding paper in her history of the ruin of the Franciscan Missions in California, and the illustrations with George W. Cable's account of the commercial growth of New Orleans since 1814, under the title, The Great South Gate.

Poems are contributed to the number by John Vance Cheney, Edith M. Thomas, Frances Hodgson Burnett, H. C. Bunner, and Caroline A. Mason. Among the "Bric-a-bric" poems are some verses entitled, Look at Browning, in allusion to the freshness of his last volume *Jocoseria*; and Joseph Kirkland's humorous solution of the riddle in Mr. Stockton's story, The Lady or the Tiger, which was printed in the November *Century*.

Houghton, Mifflin & Co., of Boston, will shortly publish the Autobiography of Thurlow Weed, which must touch innumerable points of interest in the inner political history of New York and of the United States. Mr. Weed's relations with state and national officials were so intimate and influential, and he was personally so winning a man, that the story of his life will be exceeding interesting. General Winfield Scott, in a letter to Mr. Weed, speaking of his Letters from Europe, said: "Two paragraphs near the close of the book, describing your first entrance into New York, remind me of Franklin's entrance into Philadelphia, and excite the hope

that you may favor the world with a full autobiography. I cannot expect to live long enough to read the work, but you can give it the power of exciting thousands of smart boys to conquer difficulties in careers of distinguished usefulness."

Mr. Weed's Autobiography is to be published by subscription, and we doubt not agents will find it a book that sells itself.

St. Nicholas of June is crowded with pictures, and appropriately ushers in the summer with an interesting article, by I. N. Ford, on the *Tribune* Fresh-air Fund, through which so many thousands of poor city children have been enabled to taste the pleasures of a two-weeks' vacation in the country. Humor and pathos are delightfully blended in the account of this noble work, and the experiences of its beneficiaries vividly illustrated by W. H. Drake, M. Woolf, and Jessie McDermott. The latter also contributes three drawings for a poem on the same subject, by Margaret Johnson, called A Beautiful Charity.

A store of good things are contained in the June number of the *Atlantic Monthly*, and it does credit as usual, to Mr. Aldrich's taste in selection. The third and last act of Henry James's clever dramatization of Daisy Miller is contained in it, and also the conclusion of Miss Sarah Orne Jewett's story, A Landless Farmer. Perhaps the most noticeable things in the number are a poem by Whittier, How the Women went from Dover, a stirring ballad of the old days of Quaker persecution in New England; and a paper entitled Mr. Emerson in the Lecture-Room, reminiscences of the great thinker's lectures delivered at Harvard College in 1870. Charles Dudley Warner has a travel sketch on Monserrat, written in his usual happy manner. Mr. Richard Grant White contributes the first part of an international paper, Mr. Washington Adams in England, in which he will succeed in setting off the peculiarities of our compatriots as they appear abroad, as well as making some clever hits at our British cousins. Bridget's Story, by L. C. Wyman; The Biography of Two Famous Songs, by Amelia Barr; a gossiping and attractive article on Table Talk, by F. C. Baylor; and Life in Old Siena, by E. D. R. Bianciardi—add to the variety and general brightness of the contents; while timely and thoughtful essays on Morality in the Public Schools, and Authorship in America, form the *pieces de resistance* of the number.

Among recent decided successes in the book line is THE TEACHERS' AND STUDENTS' LIBRARY. The numerous *outlines*, *concise*, *scholarly text*, abundant *questions*, the *methods of teaching*, *etc.*, *etc.*, combine to make this the most popular book of the day. It has received nothing but commendation from the press and educators all over the country. Its price, \$3.00 for one royal octavo volume, makes it the cheapest book out. T. S. Denison, of Chicago, is the publisher.

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THE MODOC SCHOOL.

CHAPTER III.

PROFESSIONAL STUDY.

“A WORKMAN is known by his tools,” and a teacher may be known by his library.

Glen Goodwin resolved, if there was a science of teaching, he would try to understand its principles, so he sent to a friend who was one of the best teachers in San Francisco, and gave him a check for one hundred dollars to expend, as he thought best, in books and papers relating to teaching. One hundred dollars, wisely expended, will buy a better professional library than nine-tenths of the teachers in California possess; indeed, it would probably be much nearer the mark to say that ninety-nine teachers out of a hundred do not own that amount of books treating of the science or theory of teaching.

This friend first subscribed for four or five of the prominent journals of education, and ordered such of them as could furnish back volumes to do so.

He then expended about half the remaining money for the standard works on Theory and Practice, School Government, etc.

Then with the rest of the money he bought some works on psychology, physical training, and the kindergarten; several books on industrial schools; quite a number of educational reports, which could be had for

the trouble of sending for them; and last but not least, all the principal primary works on arithmetic, geography, reading, drawing, music, etc. Every teacher should have a number of these latter, which are offered to teachers for examination at prices which make their purchase within the reach of every teacher who really desires to improve himself in his profession.

The most of these arrived when the first week of school was nearly over, and Glen and May agreed to spend the time between the children's bedtime—eight o'clock—and their own hour for retiring in the study of these works. They had begun, by this time, to feel the need of such works most sorely, though they found their work growing a little easier every day.

They also resolved to take a day out of each week, when one should conduct the school alone, while the other visited a neighboring school. Nora Saxon also joined in their evening studies and conversations, and Glen was astonished to find that she had, before this, read no work at all on the theory of teaching, but had been learning entirely by blundering experience.

Yet the books differed in theory. There seemed to be few well-settled dogmas, if so they may be called; and those that were accepted were often violated by the writers who professed to hold them in esteem. In progressing from the known to the unknown, there was many a perpendicular bank for the scholar to be helped up, many a wide chasm for the pupil to be lifted over; yet the writers all professed to believe in self-help.

A road appears shorter the oftener one travels it. Obstructions appear easier the more others have been surmounted. Confidence in ability increases with every successful trial made alone.

Pupils need encouragement; they need sympathy. It is mistaken love to carry them on your back over rough or boggy places. The more they are shown, the more help they demand; and it is a long road to him who must be dragged along the way.

In visiting schools, Glen found it plain sailing so long as he kept upon the one tack of professing himself a beginner, anxious to learn the best ways of teaching. The teachers were full of wisdom and advice, while lamenting that this school was not so good as some other they had taught. It was surprising how many schools had been nearly ruined by other teachers, though the pupils were now beginning to pick up.

Very few teachers spoke in a natural tone of voice, and impatience, dogmatism, and often positive rudeness marred their speech. They would establish rules for the pupils' guidance, but few cared to be bound by their own rules. Like small Czars, they seemed to think themselves beyond and above all law.

"Why do you teach thus and so?" Glen often inquired; and it was seldom teachers could give a better answer than, "O, I have found that to be the best way."

And if he hinted that the books did not approve of that method, the

teacher would look pityingly at him and say, with a mournful shake of the head, "I'm afraid your teaching won't amount to much if you stick to the book ways."

"Who are the authors of these books you seem to think so much of?" said one odd genius. "I will tell you. They are written by teachers in normal schools who have taught primary schools, it may be many years ago. They have forgotten their failures, magnified their successes, and evolved their theories since they quit primary work. They go into a school for an hour and give a little lesson they have elaborated for weeks, and the teachers and children say, 'Wonderful.' The tough, every-day drill they know nothing about, and that must be done. These methods, as they call them, are mostly mere embellishments, useful only for a little variety, and as a display when the school director or superintendent comes in."

So Glen felt puzzled, among so much conflicting testimony, to know which was the true way, if, indeed, the true way had been discovered. Then he ran across a teacher who believed in oral instruction, and would not use books. "Books are written by college professors," explained this teacher, "and they shoot clear above the heads of ordinary children. Look at our arithmetics. They were written by a West Point professor, who was a fine mathematician, and it is said he compiled his intermediate arithmetic in six weeks. He classifies his subjects, but makes no attempt to grade the examples. He puts in numbers of things we have no use for, and leaves out some of the most important practical kinds. Results are put before experiments, rules come before operations. The children do the examples just like the sample that is given in the beginning of the case, and when they meet with precisely the same kind in miscellaneous work, they know nothing of it. If they find addition won't get the answer, they subtract. If that don't bring it, they multiply or divide."

So Glen returned from his trips, feeling he was but little the wiser for them, though he had seen many things he felt he must avoid, and that is something. If we know we must not take certain roads, we are more likely to go on the right way than if we feel entirely astray.

May Harvey did not succeed much better in her visits, but as she was a woman, she could take the ways of others, and adapt them to her wants more successfully than a man.

"Why not sit down and reason it out," thought Glen, one day. "There are certain things to be taught, there must be a best way to teach each subject. Let me throw theories aside, and think what I should want to know if I were entirely ignorant and destitute. When the relative importance of different kinds of knowledge is fixed, then the question is, What are the natural steps to acquire that knowledge? Spencer handles this first question well, but he generalizes; I want to particularize. Here is Pacific County, the environment of my boys and girls. The education fitted to a Russian or a Turk would not suit these pupils. Yet there are some things all men need alike. Health, physical strength, dexterity,

good morals, intelligence, good humor—these are needed by all. But a knowledge of the plants, the soil, the climate, and the capabilities of this particular county is special knowledge which we need. Our food, our society, our government, we need to study particularly, and not in the general way we do foreign plants or conditions of society.”

So these and other problems Glen studied many an hour; and where all was doubt and darkness at first, glimmers of the true light began to appear. Nor did he forget to study the little ones, their likes and dislikes, their passions and their former training, their thoughts and their capabilities. He had always a kind word or a smile for each one, and children love those who notice them and are kind to them. He won the hearts of the Spanish pupils by occasionally conversing with them in their own language, and for one hour each day he made an agreement with the pupils that they should speak Spanish and nothing else. The rest of the time the Spanish children were desired to speak English only, and it was surprising how quickly they caught the words of our language.

People can get along with a very small vocabulary, but the number of words a child understands is much greater than is commonly believed, numbering oftentimes several thousand.

Then Glen found that the vocabulary of some of his family was much fuller in certain directions than was desirable. It is one of the unexplained mysteries how children of well-behaved parents (who keep their children in as good company as they are able to) will learn so large a stock, as they almost invariably have, of the vilest words in our language. Parents who never know their children have heard an oath are often surprised at a burst of profanity from their little ones.

Probably much of the vulgar speech is taught by the mother in an effort to be over-nice in public, and the child naturally rebels against what he can see no sense in. The mother who trains her boy to call a bull a “gentleman cow,” and a horse’s tail, his “narrative,” need not think she is thereby making her boy modest, for the effect is precisely the reverse.

It is always wise to mistrust a person, man or woman, who makes too great a profession of modesty. I remember reading a story of a lady who congratulated Dr. Johnson on his leaving the vulgar words out of his dictionary.

“Ah! madam,” was his reply, “I see you have been looking for them.”

“To the pure all things are pure”; and while children should be taught that there are certain subjects to be avoided in general conversation, yet they should feel free to ask parents and teachers privately any question on any topic not of a personal or private nature.

As in Pacific County stock-raising is an important industry, Glen taught the boys how to care for stock, and explained the principles of breeding, telling them how this trait or that shape and color may be fixed or eradicated by proper selection; and it was not long before the boys felt wise

in the mysteries of thorough-bred grades, and crosses, and were eager to put their new knowledge to practical use. Glen gave each of his pupils a setting of Plymouth Rock eggs and a weekly allowance of ten cents, and offered a prize to the one who should show him the second year the best pair of fowls with the most approved markings, shape, etc. How they did discuss the bills, the legs, and the other markings of those chicks when they were hatched!

Byron learned that grease was good to kill lice, and desiring to have his chicks free from that pest, greased his hen so thoroughly that his eggs did not hatch. An overdose of sulphur caused another disgusted biddy to leave her nest, but at last the children were all supplied with a half-dozen chicks apiece, and never were chicks more faithfully cared for while they were in their infancy. The relative merits of dry or wet food, and raw or cooked, were thoroughly discussed, and numerous guesses as to the sex of the various members of the Plymouth family were freely hazarded and frequently changed.

One which inherited five toes from his remote Dorking father was the subject of many curious remarks, and formed the subject of a little lecture on atavism by Glen, at the close of which the poor chicken was unanimously doomed to the pot when it should arrive at the proper age.

"That's what you get by taking after your great-grandfather instead of being like other folks," said Joel Crane, shaking his fist at the unlucky fowl.

It was no trouble for the little folks to tell their own property even when the elders could not distinguish a bit of difference between the little fuzzy chicks. Young eyes are sharp, and there was no quarreling over which was whose. But there was swapping, and as with older people there was much rueing of bargains.

"Byron offered me two for one, and so I traded with him, and then he laughed at me, and told me both of mine are cockerels, and the one I gave him was a pullet," said a tearful complainant to Glen; and Glen, after giving him some wise advice about making the best of a bargain once made, told the lad that he could probably exchange his cockerels with Uncle Sam or some of the neighbors and get a couple of younger pullets in exchange; and good old Uncle Sam, hearing how the trade had been made, gave him a couple of fine pullets in exchange, gravely asking him ten cents to boot, which the little fellow cheerfully paid.

The other boys rushed off to make similar exchanges, but Uncle Sam declared he had only traded for those two because they were particularly fine ones, and he wanted them to breed from, and he talked up their fine points so enthusiastically that Byron wanted to swap his pullet back for only one of the pair he had parted with, and went off mourning because Uncle Sam refused to make the exchange.

Old or young, we are prone to value what our neighbors value, desire what they want, and strive after what they prize.

Bees, also, were studied enthusiastically, and the number of bands which the various grades of hybrids showed were gravely commented upon. Cyprians and Holy Land bees were ordered from the East; Cook and Quinby, Root and Langstroth, were listened to and quoted, for Glen made it a practice to read to them what different writers said upon disputed points. Archie King was quite an authority on bees, for he had helped his father so much about the apiary that their ways were well known to him. Plants were studied, too, and many a time when Glen was obliged to say he did not know the name of some common tree or shrub, one of the children would be able to tell its name.

"Shall these children put me thus to shame," Glen would ask himself, and for an answer he would bend more earnestly to his studies.

May Harvey was not behind Glen in the study of preparation, and though she did not possess so much natural ability, yet she possessed the power of readily using her knowledge, and so was able to do as much with her store as Glen with his greater amount. Not what we have, but what we use, makes us useful.

This work of preparation was not all pleasant. Many a time both felt an inclination to throw up their bequest, or if not that, to leave this hard work to others and get along as well as they could without it.

But both felt it necessary to so prepare their lessons that they would be independent of a book during the class exercises; for nothing takes away the life of teaching more than a constant leaning on the text-books.

Saticoy.

C. M. DRAKE.

FRIEDERICH FROEBEL.—THE KINDERGARTEN.

IN TWO PARTS.—NO. TWO.

IN 1812, Froebel left Göttingen for Berlin, impelled by a desire to study mineralogy, geology, crystallography, and their governing laws.

These studies were violently interrupted in 1813 by a call to arms. Although this summons aroused no enthusiasm in his breast, he determined after mature thought to answer it, and to this end went to Leipsic, and enlisted in the Lutzow corps. During his first and only campaign, he formed the acquaintance of Middendorf and Langethal, two theological students, whose lives were, after a short time, closely linked with his.

After a campaign, which lasted only about three months, he was appointed assistant in the museum of mineralogy at Berlin; and his two friends pursued their theological studies in the same city. Beside them, he visited Hofmeister, the Prussian Minister of War, and his daughter Wilhelmine, with whom he talked constantly of his educational plans.

But good as was his position, and pleasant as were his social relations, he was restless and dissatisfied. His brain was incessantly teeming with ideas of an educational system that would conform to nature. Inanimate objects led

his thoughts always to the animate, and he longed to be once more a master among pupils.

This desire led him to apply for a discharge, which was granted in September, 1816.

He had a small sum of money, realized from the sale of some minerals, an immense amount of determination, and a wonderful knowledge of child-nature; upon these he based his educational venture.

The widow of his eldest brother, who had been killed in the war, lived at Griesheim with her three sons. He deemed it but right that he should aid in educating these boys, so he bent his steps to their home, and there opened his institute. Two other nephews and the younger brother of Langethal were soon added as pupils; and in a short time Middendorf and Langethal joined him as assistant educators.

The institute was soon moved from Griesheim to Keilhan, where his sister-in-law owned a peasant's property, and where all concerned suffered much hardship and many privations.

However, in 1818 twelve pupils attended, and Froebel began to think of marrying, in order to combine school and family life. He knew that Miss Hofmeister fully sympathized with his educational ideas, and that she would make a loving wife; so he went to Berlin, offered himself, was accepted, and they were married on the 20th of September. Soon after, a most violent storm of poverty assailed the Universal German Educational Institute, as it had been named.

Men who live for the furtherance of an idea are rarely possessed of good business capabilities, and Froebel was no exception to the rule. He was entirely lacking in providence, and was fully determined that his idea should succeed, no matter what happened to his body in the mean time. The most singular thing about it is how help always came to him. Even now, when the institute seemed in its very death-throes, new life was suddenly infused into it by his brother, who brought his family and means to its aid.

Froebel was now beginning to be recognized as an educational prophet, and opportunities were given him to put his ideas in execution. In 1831, in company with Schnyder von Wartensee, he founded the Institution of Wartensee, in Switzerland, and in 1832 the Institute for Girls at Willisau, in the same country. While at Burgdorf, in 1835, he founded the Educational Orphan Institute, in answer to a call from state authorities.

He was by this time in his fifty-fourth year, and had been teaching since he was twenty-four. His belief in the unity of life tending to diversity and back again to unity was stronger than ever. The development of the child was with him amalgamous to the development of man from an uncivilized into a civilized state. He knew child-nature thoroughly, and could predict almost to a certainty what effect any peculiar course of training would have upon it. From careful observation he had become assured that the canker-worms of indolence, viciousness, and immorality begin to prey upon the young child's character long before he has reached what is commonly considered the school age. Three causes seem to conspire to injure very young children

—over-indulgence, ill-advised correction, and neglect. Then their toys appealed only to the destructive elements of their character, and many of their plays inculcated the first principles of dishonesty. They were allowed to live without aim, many of them even without direction until their seventh or eighth year, and were then plunged suddenly into a bath of rules and abstract sounds. What wonder that some of the little ones gained a dislike for the very name of school, and that others walked through life blindfold! How could minds respond to an abstraction? How could eyes see, that had never been opened?

Thoughts like these, working always in his mind, brought forth a system of education which would bring harmony into the lives of children from three to seven years of age. To this new institution he gave the typical name of kindergarten, and founded the first one at Blankenburg, in 1837, using as a motto, "Come let us with our children live."

While trying to root this new and tender educational plant in Dresden, two years later, his wife died. She was a gentle, loving woman, who lived entirely for him and his idea. Her death caused him keen pain, but he was used to pain; it had been a constant attendant on his life. And now, like a sturdy tree, standing lone upon a mountain side, he bent with the passing blast, and stood erect again to meet the coming one.

The necessity of propagating his new idea brought him out of sorrow into labor. His efforts in this direction met with a fair amount of success. To women, whom he considered the educators of the race, he addressed himself particularly, rousing their fervor and opening their minds to duty.

He was deeply gratified when at Hamburg, in 1840, the kindergarten was made a national institution.

In the mean time, the various institutes he had founded had been going through more or less of trial. The one at Willislan was constantly attacked by the Jesuits, and when the government passed into their hands, had to be given up.

The one at Keilhan, it will be remembered, was named the "Universal German Educational Institute." This name aroused the suspicions of the Prussian Government, which thought it scented a hot-bed of socialism in the growing school. These suspicions were further strengthened by the fact that a man of wealthy family by the name of Barop* had joined its band of educators, preferring poverty and labor with them to plenty and idleness at home.

Keen as a bloodhound on the trail, the Government sent its superintendent, Zeh, to examine into the workings of the school. His report completely exonerated it from the charge of socialism, and was a great tribute to Froebel's wonderful abilities as an educator. He termed the institute "an intellectual gymnasium," and even went so far as to say that if all educational institutes could be modeled on the same plan, a more powerfully intellectual and truly noble race of men would arise.

This favorable report allowed the institute to exist; but all the pupils were required to wear short hair. Such interference was bound to bear fruit ;

* Barop had also been mixed up in some government trouble.

the wealthy families became alarmed, and fifty-five children were withdrawn, leaving only five in the Institute.

If the men who were conducting it had been living to advance themselves instead of for the advancement of an idea, this trouble would have finished the school; but owing to their unselfish devotion it rallied. Froebel himself never lost hope. And it was in times like these that the words of his favorite hymns came to solace him.

After his kindergarten idea was fairly started, he busied himself in writing a little book for mothers, entitled "*Mutter und Koselieder*." Previous to this he had written several pamphlets on education.

The moving idea with him now was to establish a training school for kindergartners.

For this purpose the Duke of Meiningen allowed him to use his hunting castle, Marienthal, at Leibenstein. It was situated in a lovely spot, and surrounded by landscapes remarkable for beauty and tender grace.

Here the veteran educator established himself with his class of girls. He had pursued his work but a short time when he felt the need of an assistant, and married, in his seventieth year, Louise Levin, one of his former pupils. She proved in all ways a true helpmate, devoting herself entirely to her work.

Perhaps the best friend Froebel ever had outside of his own immediate circle was the Baroness von Marenholtz-Bülów. And it was unfortunate for him that he had not sooner come to her notice. She bent every effort to the advancement of his cause, using, when necessary, both money and influence. She introduced him to noted educators and prominent government officials, confident that if his ideas were once fully known they would be accepted. She was not mistaken. His methods were looked into and warmly commended. And it seemed as though, at last, he would receive some reward for his years of poverty and toil. But on August 7th, 1851, the Prussian Minister of Education issued an interdict against the Froebelian system.

This was the final blast that uprooted the hardy old tree. Death did not immediately follow, it is true, but all strength for future striving was gone.

For months his friends labored in his behalf, and tried to prove to the Minister that it was a case of mistaken identity.* But that functionary refused to listen to any explanation. Froebel felt this unjust, yet did not murmur, and always bade his friends be patient and hopeful.

One well-merited honor he received before death overtook him. When he visited the teachers' assembly at Gotha, all arose at his entrance, and cheers burst from every lip. That must have been a moving picture! Froebel with his strong, care-lined face and venerable aspect, standing in the midst of that learned assemblage, while, by acclamation, they declared him a prophet—the prophet of the Thuringian forest.

In the month of June, 1852, he broke down completely. His last sickness was cheered by dear friends, whom he admonished to be firm and true, and by little children who brought him flowers. At midnight of the 21st he died calmly and peacefully. His last words were: "God, Father, Son, and

* Karl Froebel was the socialist.

Holy Ghost, Amen." He was buried in Liebenstein, near the scene of his last earthly labors; and above him was placed a sandstone monument representing his favorite ball, cylinder, and cube.

Such was the life of a truly great and Christian man. A man who lived, not at all for himself, but altogether for his race.

More than a quarter of a century has elapsed since his death, and yet the magnitude of his labors is known only to the few. But every day beholds some new worshiper at his shrine, who delights in talking of his greatness, and who honors his love for children. So that slowly and surely his fame is spreading. And it is to be hoped it will spread, until no mother remains in ignorance of his system.

In 1861, the new Minister of Education, finding the accusations against the Froebelian system entirely unfounded, revoked the ordinance and permitted it to awake to new life. Since then it has prospered greatly, and one of the men first connected with it, Barop, has received many honors.

Although Froebel formed an entire educational system, it was in the kindergarten that the flame of his genius reached its brightest light.

In this realm he stands entirely alone. Others before him had, undoubtedly, advocated the use of the child's activity as a means of education, but no one before him had perfected a system by which it could be used. And it cost him twenty years of thought and labor before he could bring his into perfect working order.

The kindergarten is not, in any sense of the word, a primary school, nor was it intended to take the place of such school. It proceeds on entirely different principles, and addresses itself rather to the psychological and physiological qualities of the child than to his intellectual qualities.

In it he is given companions of his own age, whose rights he must respect if he would have his own respected. He is taught by development, patience, humility, obedience, and self-control. In whatever he does, he must rely on himself and upon his own ideas. His whole nature is strengthened and broadened by exercise, instead of being clogged by the pouring in of useless matter. He lives in a miniature world, where he must either conduct himself properly, or go entirely away from his friends and companions.

If all this were taught through any other means than the child's own activity it might prove really injurious; but the principle underlying it all is that the child will learn, in any event, and that it is better he should be properly taught from the beginning. For instance, give a little child of three or three and one-half a handful of pebbles to play with, as he sits by you on the floor. Soon he hurts himself with one of them, and you tell him the pebble is hard. From this he concludes they are all hard, and handles them more carefully. After a little you give him a rubber ball. He soon finds *that* will not hurt, and comes to you with his discovery. You tell him the ball is soft. Now in that play he has learned a lesson which will last him as long as he shall live.

You are not afraid that what you have told him will give him brain disease; so, neither will what is taught in the kindergarten, for it is taught in the same way.

The child plays there, but he plays systematically; and the materials he uses teach the eternal principles of life.

To the careless observer it may seem a stupid proceeding to give the little child a box containing a cube formed of a certain number of smaller ones; but the thoughtful person sees a great truth embodied in that simple gift. The cube, as placed before the child, represents unity; he touches it and it becomes diversity. Out of this simple diversity he forms a number of complex ones: houses, steam-engines, and a multitude of things in which his childish mind can delight. When his play is finished, he puts his cube together again, and forms unity.

In this play, beside literally handling a great principle, he has had developed in his nature something of the feeling of working in common with others, and something, also, of order. Independence of thought has arisen in him, and he has found keen delight in preserving his individuality by giving some part of his work a peculiar touch which renders it a trifle different from that of his companions.

If we were to study, in this way, any of the kindergarten employments—sewing, weaving, paper-folding, designing, or modeling, we would find that under each one lies some great principle.

It is not the mere fact of a child sewing fifteen minutes that is to be considered, but *what* he sews. With red worsted, on a ground color which perfectly harmonizes with it, he outlines a circle; and next to it he forms a round gourd with its leaf, in their natural colors of yellow and green. In this work the child has come to know the most frequent, perfect, and beautiful of natural forms, and one application of it. While, at the same time, his eye has been trained in accuracy and color.

So the whole list might be run through with, and it be found that nothing is done aimlessly or simply to fill up time. Even the plays for bodily development tend to make the child conversant with some great natural or physical truth, and to implant in his breast a feeling of love for his companions.

In the kindergarten the child is not burdened with rules, and the whip is never held over him. He is told what is right, and what is wrong, and is shown that if he does the former he will be happy, but if he does the latter he will be unhappy. Whatever wrong he does, he is expected and made* to do right of himself. No little thing is overlooked. The kindergartner knows that life is made up of little things, and that if the child be allowed to pass them by the man will do likewise. She will be to her pupils as a tender, loving mother, and he must be to her as a dutiful son. This discipline, through promoting the growth of good principles, is the only discipline worthy of the name. The man must be strong within if he would resist evils that attack him from without. Such strength will not come to him in an hour nor

* This word is not used here in its usual sense. There is no force in the kindergarten excepting moral force. The true kindergartner has a way of inspiring her pupils by appealing to the hidden springs of their nature. She is a psychologist, who addresses herself to the child's soul with the same ease that a teacher of mathematics addresses herself to his mathematical faculty.

in a day; it must be the slow growth of years. And if its first tender shoots are cared for in the child, its wealth of eternal beauty will be with the man.

Upon mothers, rightly, falls almost the whole of youthful training. And when a system which would materially aid them is brought to their view, it is their manifest duty to embrace it.

But although the question of youthful training has the strongest claim on the mother's attention, yet the question of education in its entirety appeals directly to the father because it ultimately affects the state. "Ce n' est pas la rareté de l' argent," says Voltaire, " mais celle des hommes et des talents, qui rend un empire faible." And Fichte, going a step still farther back, writes: "The State cannot be constructed intelligently by artificial measures, and out of any material that may be at hand; but the nation must be educated and cultivated up to it. Only the nation which shall first have solved the problem of education to perfected manhood through actual practice, will solve that of the perfected State."*

The parents of to-day are educating the men of to-morrow; and upon that education depends the immediate future of our nation. If the children are being made strong in right principles and rich in intelligence, then America will be great. But if they are allowed to grow up in vicious idleness and dependent weakness, then America will be feeble. And when she has grown so feeble that her head cannot control her members, she will fall apart and her name be heard no more.

The kindergarten system is peculiarly fitted to American institutions, because with us it is a matter of vital importance that every man have perfect honor and true intelligence, that he be led into no idle habits, and that he be rightly taught how to employ the creative force within him. Such a result can only be obtained by surrounding him in early youth with influences conducive to it. Such influences are found in the kindergarten, which addresses itself not only to his memory and receptive faculties, but to his entire being, and which will lay in him the foundation of a manhood useful to himself and beneficial to others.

REGINA WILSON.

DOES THE PROFESSION ADVANCE? †

PART I.

THAT the tendency of the age among brain-workers is upward and outward is a self-evident truth. Especially is this apparent among the host of occupations, which, within the past two decades, have been attempting to enlarge the professional sphere by breaking the circle which hedged in the traditional trinity of learned professions—law, theology, and medicine. Prominent among these have been teaching and journalism. Both are, to a certain extent, possessed of similar advantages and disadvantages. Success in each

* Not original translation.

† A paper read before the San Mateo County Teachers' Institute.

depends more largely upon individual worth than obtains in other callings. Both give room for great mental growth and activity, and to be at their summits requires the broadest and deepest culture, combined with unlimited common-sense. An erratic genius may succeed almost anywhere else better than in these fields. Both labor under the disadvantage that their work is not well understood by the public at large. The idea too often prevails that almost any one with a fair education can teach school or edit a newspaper. Because their work is not so showy as that of some other professions, it is too often underrated as mediocre. Both are alike in the fact that the individual is apt to soon sink his identity into his calling, and the voice of an approving conscience must be his reward oftener than that fame for which others are striving. True, there are journalists and teachers who have made a world-wide name, but you can almost count them upon your fingers' ends.

Experience and logic have so often proven of late years that teaching is now a profession, that it cannot longer be regarded as a mooted question. The province of this paper, then, will not be to argue this point, but to inquire into the question which naturally follows: "Does the Profession Advance?" At first glance the question may appear to have but one answer. As the mind ranges back to those to us merely historic days, when teachers taught winter district school for three dollars a week, and enjoyed the delights of "boarding around"; or going still further back, when the masters of fiction represented the school-master as a type more fit for ridicule than honor, like the Ichabod Crane of Irving, the David Gamut of Cooper, or the Squeers and McChoakumchilds of Dickens, the answer is apt to impulsively come, "Certainly the profession has advanced." But the question is not, "Has the Profession Advanced?" The query is in the present tense.

Perhaps the financial aspect of this question is the one which is apt to present itself to us as the most important phase. Professional advancement means, for many reasons, higher wages. If every year sees a steady though it may be slight rise in teachers' wages, it is proper to infer that teachers' services are becoming better, and are better appreciated. Probably there is among us no teacher but admires and sympathizes with our PACIFIC SCHOOL JOURNAL in its gallant fight for better work and higher pay for the teachers. And yet, we as teachers are proclaiming ourselves as content with half-way measures if we allow our educational journals to fight all our battles for us. Can it not be rightly charged that we are too often supine spectators of a contest in which our only interest seems to manifest itself by an occasional shout of "Bravo!" when the opposition of ignorance and political scheming receives a telling blow from our brave ally? "Well, then," asks one, "shall we commence aggressive warfare, and antagonize every element which we think hinders our advancement?" By no means! Such a course would be childish. Let the battle be a silent one. Let it be a contest between ambition and indolence in our natures. Let the following be laid down as an educational axiom, and be the watchword of our fight for higher wages: If every teacher strives to be worth more than he now receives, the professional compensation will surely rise.

The cry is often heard that the public needs educating to a point where it will appreciate true merit. Grant that, and then let every teacher strive to help educate the public by giving it such good service that it will not be able to tolerate lifeless schools, and unenthusiastic teachers. It is only by contrasts like these that its views will be elevated. If we are servants of the public, let us prove ourselves so indispensable to the public's best interests that it will be glad to reward us accordingly, and exclude from its pay roll the undeserving.

These thoughts, while applying to teachers as a class, seem especially applicable to the public school teachers. From the similarity of their methods, the unity of their aims, and their drill together as a grand army, the public schools help to intensify professional feeling. The essential machinery of the body is much more complete, and the organization better than it was many years ago. That the public does appreciate better work is evidenced by the fact that it is annually building better school-houses, supplying them with better furniture and libraries, and equipping them with more and better apparatus. In these respects, then, the profession may be said to be advancing. But put into one of these schools a sleepy, phlegmatic teacher, and his very presence seems to help the dust to accumulate on the apparatus, the mildew on the maps and charts, and the cobwebs in the library and in the brains of his scholars. President Garfield was not a man to place a low estimate upon all proper helps to education, and yet he expressed in no uncertain terms his higher faith in the warm, glowing personality of a living teacher, by saying: "Give me a log cabin in the backwoods with but the end of a single bench for myself, and put Mark Hopkins at the other end, and that is a good enough college for me."

If the advancement of the profession is to be judged from its financial rewards, I am proud to be able to say that California is foremost in the list of the States. By reference to the last-published report of the commissioner of education, the following States are selected at random in different extremes of the Union. It is found that in Maine the average monthly salary paid to males is \$32.97, to females \$21.68; in Massachusetts, the boasted home of culture, containing the "Hub" around which we are all supposed to revolve, the sliding scale marks as follows: males \$67.54, females \$30.59; in South Carolina, males \$25.24, females \$23.89; in Louisiana, males \$27.00, females \$25.00; in Illinois, males \$41.92, females \$31.80; in Oregon, males \$44.19, females \$33.38; and crossing the line into our own State, the average monthly salaries paid to our public-school teachers are, males \$80.26, females \$64.73; although this is a little ahead of the average in our own county. There is only one State in the Union whose salaries compare with this, and that is Nevada, whose average is somewhat higher, but which difference is more than counterbalanced by the shorter term of office and higher cost of living. So it may safely be asserted that California teachers are better paid than those of any other State. And while these figures even are not as high as we think they should be, it is encouraging to us off here on the western borders of the continent, and certainly indicates that the profession on this coast is not retrograding. It remains with us as a body to keep these rates as they are at

present, or perhaps to advance them. Certainly it is to be hoped that we can keep them from falling below their present figures.

What can hardly fail to impress the close observer in the foregoing statistics is the great disparity between the wages paid to male and female teachers. That this is right, few will dare to maintain. Right at this point, there is certainly room for great advancement. The idea that a woman should not receive the same pay for doing the same work, and doing it as well, as a man, is one that is inconsistent with the progress of the age, and should have been exploded years ago. It is without a shadow of justice or reason for its support. I am not aware that the woman who pleads your cause in court, or who by her medical skill raises you from a couch of sickness, is expected to receive a less compensation for like acts than her brother professionals. Why then should the woman who trains the immortal souls of your children, if she trains them aright, receive less than a man receives for the same service?

Pursuing this same line of thought, the absurd ruling made in San Francisco and some other large cities, discriminating against married women as teachers, seems entirely opposed to the spirit of dignity and common sense that should be possessed by those whom the people see fit to elect to the high office of educational directors. The process of reasoning to support such a scheme is childish in principle and destructive in operation. Presumably the public schools are a sort of public corn-crib, designed to support the droves of young women who come hither for a living. As soon as one of them is placed out of the reach of pressing need by finding a husband who will support her, she must give way to another who is to earn a livelihood by experimenting upon the minds of the rising generation, until she attains a fair degree of success, gets married, and in turn steps out and gives way to another inexperienced expectant. Thus the the public schools become a sort of charitable Young Women's Aid Association, in which priceless intellects are placed in the balances opposite considerations of a wider distribution of the public pap. Such things as these mentioned can hardly fail to bring the whole system into ridicule with thinking people, and certainly do not tend to advance the professional standard.

But do not understand by this that it is my idea that the supply of young teachers should be cut off. Youth is a synonym of life and enthusiasm. It is a narrow view taken by many teachers that the profession is retrograding by reason of being overstocked with new teachers, and they bewail the crowding-out day of fate which they see impending more clearly every time the State Normal School, University, and many other schools throughout the State contribute their fresh annual supply to the ranks of those already holding certificates. But if they are progressive teachers, they need not fear. The new comers need never stand in their way. No professional body is apt to suffer by the infusion of new young blood. If the incomers are worth anything, they will help to elevate the profession. If they are not, they will soon find their level. If examining boards do their duty, and do not admit incompetents to the ranks, the ranks do not suffer. That many such do apply and are excluded, is only evidence that the standard of admission is higher than public opinion

often gives it credit for being, and that incompetents turn from it with perhaps a poorer opinion of themselves, but a higher opinion of the profession, for which they will make a more earnest preparation, and on final admission will prove themselves to be better members than they otherwise would have been.

To illustrate, I will quote from the questions of a county superintendent in Illinois—a lady who has the courage to expose the ignorance of many of those who seek the teacher's place. She asks: "What works on teaching have you read or studied? What educational journals do you take and read? What magazine or newspaper do you habitually read? Name four miscellaneous books you have read during the past year, and give names of authors. Name four histories or biographies. Name five noted prose-writers of America; tell whether they are living or dead, and name the principal work of each. Name five poets; five writers on education—American or foreign. Name five leading educators of America, also five of any other country." "These," she says, "have been among my standing general questions for years, and the result is something wonderful, if not appalling. I have noted down some of the replies, and they furnish the best possible proof that a reform is needed in the direction of teachers' reading."

W. B. TURNER.

Pescadero Grammar School.

A LESSON IN POLITICAL ECONOMY.

ON THE REASONS WHY MAN IS NOT ALTOGETHER A BRUTE.

THE Arabs have the story of a man who desired to test which of his three sons loved him most. He sent them out to see which of the three would bring him the most valuable present. The three sons met in a distant city and compared the gifts they had found. The first had a carpet on which he could transport himself and others whithersoever he would. The second had a medicine which would cure any disease. The third had a glass in which he could see what was going on at any place he might name. The third used his glass to see what was going on at home: he saw his father ill in bed. The first transported all three to their home on his carpet. The second administered the medicine and saved the father's life. The perplexity of the father when he had to decide which son's gift had been of the most value to him illustrates very fairly the difficulty of saying whether land, labor, or capital is most essential to production. No production is possible without the co-operation of all three.

We know that men once lived on the spontaneous fruits of the earth just as other animals do. In that stage of existence a man was just like the brutes. His existence was at the sport of nature. He got what he could by way of food, and ate what he could get, but he depended on finding what nature gave. He could wrest nothing from nature; he could make her produce nothing;

and he had only his limbs with which to appropriate what she offered. His existence was almost entirely controlled by accident; he possessed no capital; he lived out of his product, and production had only the two elements of land and labor of appropriation. At the present time man is an intelligent animal. He knows something of the laws of nature; he can avail himself of what is favorable, and avert what is unfavorable in nature, to a certain extent; he has narrowed the sphere of accident, and in some respects reduced it to computations which lessen its importance; he can bring the productive forces of nature into service, and make them produce food, clothing, and shelter. How has the change been brought about? The answer is, By capital. If we can come to an understanding of what capital is, and what place it occupies in civilization, it will clear up our ideas about a great many of these schemes and philosophies which are put forward to criticise social arrangements, or as a basis of proposed reforms.

The first beginnings of capital are lost in the obscurity which covers all the germs of civilization. The more one comes to understand the case of the primitive man, the more wonderful it seems that man ever started on the road to civilization. Amongst animals we find some inchoate forms of capital, but from them to the lowest forms of real capital there is a great stride. It does not seem possible that man could have taken that stride without intelligent reflection, and everything we know about the primitive man shows us that he did not reflect. No doubt accident controlled the first steps. They may have been won and lost again many times. There was one natural element which man learned to use so early that we cannot find any trace of him when he had it not—fire. There was one tool-weapon in nature—the flint. Beyond the man who was so far superior to the brutes that he knew how to use fire, and had the use of flints, we cannot go. A man of lower civilization than that was so like the brutes that, like them, he could leave no sign of his presence on the earth save his bones.

The man who had a flint no longer need be a prey to a wild animal, but could make a prey of it. He could get meat food. He who had meat food could provide his food in such time as to get leisure to improve his flint tools. He could get skins for clothing, bones for needles, tendons for thread. He next devised traps and snares by which to take animals alive. He domesticated them, and lived on their increase. He made them beasts of draught and burden, and so got the use of a natural force. He who had beasts of draught and burden could make a road and trade, and so get the advantage of all soils and all climates. He could make a boat, and use the winds as force. He now had such tools, science, and skill that he could till the ground, and make it give him more food. So from the first step that man made above the brute, the thing which made his civilization possible was capital. Every step of capital won made the next step possible, up to the present hour. Not a step has been or can be made without capital. It is labor accumulated, multiplied into itself—raised to a higher power, as the mathematicians say. The locomotive is only possible to-day because, from the flint knife up, one achievement has been multiplied into another, through thousands of genera-

tions. We cannot now stir a step in our life without capital. We cannot build a school, a hospital, a church, or employ a missionary society without capital, any more than we could build a palace or a factory without capital. We have got ourselves and we have got the earth; the thing which limits what we can do is the third requisite—capital. Capital is force, human energy stored or accumulated, and very few people ever come to appreciate its importance to civilized life. We get so used to it that we do not see its use.

The industrial organization of society has undergone a development with the development of capital. Nothing has ever made men spread over the earth and develop the arts but necessity; that is, the need of getting a living, and the hardships endured in trying to meet that need. The human race has had to pay with its blood at every step. It has had to buy its experience. The thing which has kept up the necessity of more migration or more power over nature has been increase of population. Where population has become chronically excessive, and where the population has succumbed and sunk instead of developing energy enough for a new advance, there races have degenerated and settled into permanent barbarism. They have lost the power to rise again, and have made no inventions. Where life has been so easy and ample that it cost no effort, few improvements have been made. It is in the middle range, with enough social pressure to make energy needful, and not enough social pressure to produce despair, that the most progress has been made.

At first all labor was forced. Men forced it on women, who were drudges and slaves. Men reserved for themselves only the work of hunting or war. Strange and often horrible shadows of all the old primitive barbarism are to be found now in the slums of great cities, and in the lowest groups of men in the midst of civilized nations. Men impose labor on women in some such groups to-day. Through various grades of slavery, serfdom, villainage, and through various organizations of castes and guilds, the industrial organization has been modified and developed up to the modern system. Some men have been found to denounce and deride the modern system—what they call the capitalist system. The modern system is based on liberty, on contract, and on private property. It has been reached through a gradual emancipation of the mass of mankind from old bonds both to nature and to their fellow-men. Village communities, which excite the romantic admiration of some writers, were fit only for a most elementary and unorganized society. They were fit neither to cope with the natural difficulties of winning much food from little land, nor to cope with the malice of men. Hence they perished. In the modern society the organization of labor is high. Some are land-owners and agriculturists, some are transporters, bankers, merchants, teachers, some advance the product by manufacture. It is a system of division of functions, which is being refined all the time by subdivision of trade and occupation, and by the differentiation of new trades.

The ties by which all are held together are those of free co-operation and contract. If we look back to anything of which human history gives us a type or experiment, the modern free system of industry offers to every living human

being chances of happiness indescribably in excess of what former generations have possessed. It offers no such guaranties as were once possessed by some that they should in no case suffer. We have an instance right at hand. The negroes, once slaves in the United States, used to be assured care, medicine, and support, but they spent their efforts, and other men took the products. They have been set free. That means only just this: they now work and hold their own products, and are assured of nothing but what they earn. In escaping from subjection they have lost claims. Care, medicine, and support they get if they earn it. Will any one say that the black men have not gained? Will any one deny that individual black men may seem worse off? Will any one allow such observations to blind him to the true significance of the change? If any one thinks that there are or ought to be, somewhere in society, guaranties that no man shall suffer hardship, let him understand that there can be no such guaranties unless other men give them; that is, unless we go back to slavery, and make one man's effort conduce to another man's welfare. Of course, if a speculator breaks loose from science and history, and plans out an ideal society in which all the conditions are to be different, he is a law-giver or prophet, and those may listen to him who have leisure.'

The modern industrial system is a great social co-operation. It is automatic and instinctive in its operation. The adjustments of the organs take place naturally. The parties are held together by impersonal force—supply and demand. They may never see each other; they may be separated by half the circumference of the globe. Their co-operation in the social effort is combined and distributed again by financial machinery, and the rights and interests are measured and satisfied without any special treaty or convention at all. All this goes on so smoothly and naturally that we forget to notice it. We think that it costs nothing—does itself, as it were. The truth is, that this great co-operative effort is one of the great products of civilization, one of its costliest products and highest refinements, because here, more than anywhere else, intelligence comes in, but intelligence so clear and correct that it does not need expression.

Now by the great social organization the whole civilized body (and soon we shall say the whole human race) keep up a combined assault on nature for the means of subsistence. Civilized society may be said to be maintained in an unnatural position at an elevation above the earth, or above the natural state of human society. It can be maintained there only by an efficient organization of the social effort, and by capital. At its elevation it supports far greater numbers than it could support on any lower stage. Members of the society who come into it as it is to-day can live only by entering into the organization. If numbers increase, the organization must be perfected and capital must increase, i. e., power over nature. If the society does not keep up its power, if it lowers its organization or wastes its capital, it falls back toward the natural state of barbarism from which it rose, and in so doing it must sacrifice thousands of its weakest members. Hence human society lives at a constant strain forward and upward, and those who have most interest that this strain be successfully kept up, that the social organization be perfected, and that capital be increased, are those at the bottom.

The notion of property which prevails amongst us to-day is that a man has a right to the thing which he has made by his labor. This is a very modern and highly civilized conception. Singularly enough, it has been brought forward dogmatically to prove that property in land is not reasonable because man did not make land. A man cannot "make" a chattel or produce of any kind whatever without first appropriating land so as to get the ore, wood, wool, cotton, fur, or other raw material. All that men ever appropriate land for is to get out of it the natural materials on which they exercise their industry. Appropriation, therefore, precedes labor-production both historically and logically. Primitive races regarded, and often now regard, appropriation as the best title to property. As usual, they are logical. It is the simplest and most natural mode of thinking to regard a thing as belonging to that man who has, by carrying, wearing, or handling it, associated it for a certain time with his person. I once heard a little boy of four years say to his mother: "Why is not this pencil mine now; it used to be my brother's, but I have been using it all day." He was reasoning with the logic of his barbarian ancestors. The reason for allowing private property in land is that two men cannot eat the same loaf of bread. If A has taken a piece of land, and is at work getting his loaf out of it, B cannot use the same land at the same time for the same purpose. Priority of appropriation is the only title of right which can supersede the title of greater force. The reason why man is not altogether a brute is because he has learned to accumulate capital, to use capital, to advance to a higher organization of society, to develop a completer co-operation, and so to win greater and greater control over nature.

Harper's Weekly.

PROFESSOR SUMNER.

SUGGESTION FOR TEACHING NOTATION AND NUMERATION.

THE JOURNAL recently described an ingenious method of teaching children how to write and read numbers. At the request of several teachers I here offer, for whatever it is worth, a suggestion on that subject. The method occurred to me while noticing a play post-office, in which the children had arranged a row of mail boxes. Of course no one finds any difficulty in teaching children to express numbers up to one hundred. Taking children, then, from seven to eight years old whom I wish to teach higher numbers, I say: "We will now call the numbers you are to express letters, and put them in the boxes of an imaginary post-office. We will first start with a row of three boxes. The first of these, counting from the right, always belong to Ones, the second to Tens, and the thirds to Hundreds. Now, when I give out such a number as 460, I mean that there are four letters for Hundreds, six for Tens, and none for Ones." I tell them that whenever there are no letters for either of the "persons" to the right of hundreds, they mustn't take his box away but simply put *nothing* in it, so that Hundreds may always be the third box from the right. From a few suggestions like these, the children catch the idea, and can immediately express any number involving hundreds.

For the next lesson, I say: "We shall now put up another row of three boxes, to the left of Hundreds, and separated with a comma partition. This second row always belongs to the Thousands family; so when I give you such a number as four, forty, or four hundred thousand, be sure to put it in the second row, and to put a zero in all the empty boxes to the right."

I think the above is sufficient to indicate the method to any teacher. Of course we proceed in the same way with millions and the higher denominations. Some one may think that children would be puzzled to know why, in writing such a number as 4,000, when we are so particular about filling all the empty boxes to the right with ciphers, it is not necessary to put them in the two vacant thousand boxes to the left. My scholars have never seemed to think of this. If they had, I should have told them to imagine a curtain drawn over the left-hand boxes, as they had nothing in them, and were not used in numbering the other boxes.

My class, none of whom were over eight, after three short lessons of this kind, readily wrote such numbers as 1,001,001.

C. H. CASE, A. B.

Pasadena, May 13th, 1883.

KINDERGARTEN EDUCATION.

This department is under the editorial charge of MRS. SARAH B. COOPER, to whom all communications relating thereto must be addressed.

WE cannot devote the space allotted us in the JOURNAL to better purpose the present month than by giving our readers the *creme de la creme* of some remarks made by Mr. Pollock before the Department of Superintendence of the National Educational Association, and sent forth by the United States Commissioner of Education, General John Eaton, in a Circular of Information containing the proceedings. Mr. Pollock says:

The subject of combining industrial education with the mental training given in our public schools is in perfect harmony with the kindergarten philosophy, which aims to utilize three years of the child's life at a time when, as a general thing, he receives no systematic training whatever. The kindergarten attempts to utilize these years in such a way that not only the child's entreaty for "something to do," or some one to play with, shall be satisfactorily responded to, but that, at the same time, he may also, unconsciously to himself, receive lessons with his toys which are calculated to make him familiar with the first elements of geometry, drawing, etc., together with the first important exercises in mechanical skill conducive to accuracy of execution.

While the general use of machinery relieves man of much drudgery in work, it makes greater demands for dexterity and skillful manipulation in art and mechanics; therefore the most important exercises in Froebel's kindergarten method of instruction are for the hands, as they are the most important tool of man. Without this early exercise, the elasticity of the hand is lost in

great measure; the muscles do not gain sufficient flexibility and strength to meet the demands of higher artistic work, without an immense amount of exercise and drill at a later period of life, when time may be more advantageously employed in cultivating intellectual attainments. Then, again, nothing marks noble freedom more than the free and graceful use of the hand and arms; a person with an untrained and neglected body uses the whole arm with awkward elbow, not knowing what to do with it; and the hands of the poor are usually stiff and clumsy, though they serve to earn their daily bread. A teacher of elocution once expressed to me her satisfaction that popular attention is being drawn to the early exercising of the hands and arms, for she had seen young men whom she was teaching try so hard to overcome the stiffness and awkwardness of these limbs that she felt the greatest pity for them, owing to their lack of that ease and grace which ought to be in the possession of every human being. The necessity for making use of early childhood in order to meet the demand for men and women who know and can do is making itself felt more and more. Froebel's systematic plays and occupations not only aim at this physical training, but also at the development of mind and soul, thus preventing vacancy of mind—the worst enemy of morality and childish innocence.

So well recognized is its elevating influence on the morals of the rising generation, that the Austrian Government makes attendance in the kindergarten obligatory. The great reason why kindergartens have not thus far been more generally adopted in our public schools and charitable institutions is the expense of the materials, etc., at first (though we can prove that this is a great economy in the end), and the lack of well-trained kindergarten teachers, as well as the ignorance as to the saving influence of kindergartens and the great amount of crime and misery their general adoption would prevent. This want of information exists even among those whom Providence has favored with large fortunes, with which they might, like the family of Professor Agassiz establish charity kindergartens.

As I wrote lately to Miss Peabody, the president of the American Froebel Union, the children of the rich need the kindergarten even more than those of the middle grades of society, not so much because they also need the mental and physical training given in the kindergarten, but their children are thrown more into society of nursery maids than those of the clerk, the minister, or the artisan. These latter children may thus learn at their own firesides the beautiful lessons of self-forgetfulness, cheerful obedience, and pleasure in labor. While to the children of the poor and lowest grades their elevation is in proportion to the depth from which they have been raised, to the offspring of the rich the kindergarten is the very paradise of childhood, pervaded by love, the atmosphere of heaven. But while we are waiting for the public mind to awaken and demand the free kindergarten, would it not be well to make a beginning by giving to the young ladies in our normal schools (or at least to half of them) three or four lectures a week in the theoretical and practical application of the kindergarten philosophy, which seeks, through systematized play and occupation, to educate the mental, physical, and moral or affectional

nature of the young child with equal care; for are they not of equal importance?

Many valuable reforms have already been adopted in our public schools, and if we should give to the normal scholars the kindergarten training, they would be enabled to introduce some of its valuable features into the present school system; thus, when the kindergarten finally becomes a free institution, we should have a corps of trained teachers all ready to enter upon their field of labor.

The blocks, both cubes and oblongs, as well as the sticks, the kindergarten drawing, and some of the other occupations, would form an admirable substitute to occupy the time now given to primary arithmetic. The lessons would not only be more simple and pleasing, but would lead to a clearer comprehension of numbers also. Another hour devoted to the cultivation of the child's moral and physical nature by means of musical movement plays, stories, or learning of verses, etc., would still leave an hour or more to reading and writing, which is enough for a child to study during his first year of school. The experiment of combining kindergarten methods with the primary school instruction was successfully tried in Allston, Mass., by Miss Susie Pollock of Washington, who received her kindergarten training in Berlin, Prussia, in 1869, and, with myself, is now associate principal of the Kindergarten Normal Institute of Washington. This school at Allston grew to be such a center of attraction that every available place was filled with little pupils (eighty). But the insufficiency of the remuneration for the amount of work done, without assistants, led Miss Pollock to give up this school to come to Washington, where a larger salary was offered by private individuals.

The problem of expense has been satisfactorily solved in St. Louis, where fifty free kindergartens are in successful operation. The salaries range from \$500 to \$800 a year. The teachers are not appointed by the school committee, but by the lady from whom they received their diplomas, and who is therefore best able to know their qualifications. The assistants in these free kindergartens are not paid; they are either graduates or students who are very glad to obtain practical experience in teaching. Many mothers also volunteer to assist, for the sake of learning, through apprenticeship, how to use the system in their own families. The St. Louis school committee affirms that to have added the kindergarten to the schools already provided proves an economic measure, not only by inducing habits of regularity and industry, but also because it has been proved that the kindergarten saves two years of the primary school work, and gives two additional years to the grammar school period; an important fact, when it is taken into consideration that nine-tenths of the children have only three years of school at most, and if they can have the kindergarten they will have four or five years of school life.

Let us not object, then, to the introduction of public kindergartens on economic grounds, for the arts and industries of our country will undoubtedly receive a new impetus through the taste thus acquired for symmetry, the practical application of numbers to things, and the familiar handling and use of the fundamental forms in geometry, with the clay modeling and the second

gift, the sphere, cylinder, and cube, as well as with the play with all the various triangles, etc. There can be no doubt that much of the money which has to be expended for reform schools now will be saved to the State; for the people's kindergarten will prevent crime, and prevention is always better and cheaper than cure.

EDITORIAL DEPARTMENT.

THE PROPOSED AMENDMENT TO THE CONSTITUTION ON THE SUBJECT OF TEXT-BOOKS.

THERE are three elements in American society irreconcilably antagonistic to the public school.

These are the politicians, who aim to use the system as a source of patronage; the ultra religionists, who denounce the schools as "godless"; and the plutocracy, who are unwilling that the burden of taxation should be made heavier by adding the expense of educating the children of their poorer fellow-citizens.

It is hard to decide which of these classes is the most dangerous; but careful consideration would give that bad eminence to the first named, as by their intrigues and successful manipulations, they tend to lower the efficiency of the schools, and to bring the system into disrepute among the high-minded and patriotic of all parties.

Finding in the organic law of the State an insuperable impediment to their schemes, they propose, by hoodwinking the people and deceiving them by the specious plea of "school books at cost," to amend that law. In this manner the way will again be open for a biennial book-fight in the Legislature, a quadrennial struggle in the State Board of Education, with the new complication added of a perennial chance of patronage and spoils in the State printing-office.

We are confident this proposed amendment will be beaten by an overwhelming vote, if the people once learn its import and its aim. We believe in the virtue and intelligence of the people. Let those who know something of this question—the educators of the State—appeal to that intelligence, and this amendment will surely be rejected.

The strength of the movement in its favor is that the people can be deluded to its support by the cry of free books, or books furnished at cost. Teachers know, all sensible people will easily see, the impracticability—nay, the impossibility—of such a scheme—if it be honestly carried out.

We invite teachers, and all friends of the public schools, to a full discussion of the proposed amendment in our pages.

With this JOURNAL as the center, opposition to the measure will radiate to all sections of the State.

The attention of the press is called to the matter, and their active co-operation invited.

The grounds for our opposition, concisely stated, are:

1. It is not the legitimate function of the State to make text-books, either by their "compilation" through its Department of Instruction, or in the mechanical work through the Printing-Office.

2. The law would increase the patronage of a political office.

3. It would again place in the hands of the Legislature the power of regulating the printing and fixing the price of books—a power so dangerous, and in twenty-eight years' experience so corruptly used, that the people, by constitutional enactment, deprived that body of it.

4. The proposed amendment fails to limit the "cost" of the books, thereby leaving open the door to the certain manufacture of inferior books at a price far in excess of their real worth.

5. The proposed amendment proposes to substitute for natural business competition, whereby authorship is encouraged and sustained, the literary culture of our country elevated, and legitimate commercial industry stimulated and rewarded, a species of labor, whose only fit analogy is the convict labor of our State prisons, inasmuch as the persons for whom employment is provided by any dominant political party are, as a rule, hangers-on of the "bosses" of that party, non-producers at all times, and idlers when their party is not in power.

We ask the people of California—Will it be wise, under any pretext, to give the henchmen of the "bosses" still more chances at the public crib?

THE MEDAL SYSTEM.

THE viciousness of the prize and medal system finds another illustration in a recent event in San Francisco. A philanthropic gentleman named Bridge some years ago donated a sum of money to the School Department, as a medal fund. These "Bridge Medals" are to be awarded annually to those pupils of our schools found by principals and class-teachers most deserving. Of course, as is the rule everywhere else with the system of prize-giving, so here also, jealousy, bickering, and disappointment are the results.

In the award of "Bridge Medals" this year, a boy immediately below the standard happened to be pitted against a relative of a member of the School Board. No other circumstance was needed by the daily newspapers, on whom a school director has the effect of a red flag on an angry bull, to charge intimidation by the director, and unfairness on the part of principal and teacher.

To this charge, there was not a scintilla of proof, as all educators must know when the names of the parties are mentioned.

The director, Mr. Danielwitz, is a gentleman of genial manners, a warm friend to the schools and their teachers. The principal, James K. Wilson of the Lincoln Grammar School, is one of the ablest and most influential men in the profession on this side the continent. The class teacher is his vice-principal, Mr. W. H. Hamilton, a man of sterling worth, scholarly habits, accurate judgment, and a class-teacher who has no superior in the country.

These gentlemen have established a reputation in the community which makes them entirely independent of any director or Board of Education.

The facts of the case are, that the vice-principal, sustained by the carefully kept records of an entire year, found that a bright and deserving boy, who was fortunate or (as this case seems to show) unfortunate enough to be related to a school director, was entitled to a "Bridge Medal." Of course, the fond mother of some other boy thought her own offspring entitled to the honor, and finding that neither Mr. Wilson nor Mr. Hamilton agreed with her, rushed to the newspapers.

Teachers are familiar with the same story in their own individual experience. In some form or other, it occurs in every school.

As long as every crow believes her own offspring the whitest, so long will there be a difference of opinion between teachers and parents as to the relative merits of children in school.

There is really no remedy, though the abolition of the entire prize system would remove one cause of bickering.

But what is especially to be deprecated in this and similar matters is their so-called ventilation in the public press—an attempt to dignify what may be termed a neighborhood quarrel into a matter of public interest.

A PIECE OF SATIRE.

SOME time since, a circular was sent from this office to County Superintendents, asking, among other matters, that the JOURNAL be placed on the county list of library books. Very satisfactory replies have been received to this circular. In one case, however, the Superintendent's reply is such an ingenuous, child-like document, such a delicate little piece of satire, that we give it *verbatim* to our readers, that they may share in its enjoyment. We have the additional incentive, too, of introducing Superintendent Brooke to the teachers and school officers of the State.

In reply to our circular, Supt. Brooke writes as follows:

SAN BERNARDINO, CAL., July 13th, 1883.

ALBERT LYSER, ESQ.

Dear Sir: Yours of the 29th June received. In reply, I will state that I do not think the San Bernardino County Board of Education will consent to the use of the school funds to assist in a partisan warfare upon our State Superintendent.

Respectfully yours, etc.,

H. C. BROOKE, *Co. Supt.*

The only way sometimes to learn the news is to go away from home; so it is reserved for San Bernardino's Superintendent to tell us precisely whose ox is gored.

EDITORIAL PARAGRAPHS.

SOME months ago a writer in the *North American Review* took the ground that the commonly accepted belief that the American Indians are dying out is a fallacy. The argument was prepared with evident care, and supported by statistical tables, which apparently made it conclusive.

Some investigations made by the editor of the JOURNAL lead to results diametrically opposite those of the writer in the *North American*.

Thus we find that, in the twelve Spanish missions of California, there were, fifty years ago, more than fifteen thousand Indians. There are not three thousand in the whole State to day. The school census of the three Pacific States, Califor-

nia, Nevada, and Oregon, shows a large and constant diminution under the head, "Indian Children," from year to year. This is a significant fact, the importance of which cannot be easily overrated.

In the mission church of San Buenaventura, the burial record, from the first entry made by Father Junipero Serra, in 1792, shows that of the nearly four thousand Indian interments, about two-thirds were made the first thirty years. No Indians die there now. We believe the records of the other Spanish missions will indicate a similar condition of things.

There is every proof that, on this coast, at least, with the advent of European civilization, the death-rate among the Indians soon became abnormal, and went on increasing in more than an arithmetical ratio.

THE question of national aid to education in the States is likely to come up again before the next Congress, and discussion is in order now.

We regret to differ from so many esteemed and abler contemporaries on the expediency of basing national aid on illiteracy. On this basis, the money apportioned by the General Government will go largely to the Southern States.

Now, we find much to admire and commend in the policy of Hercules, who helped the wagoner only when the latter put his own shoulder to the wheel.

It seems to us that these Southern States, with the possible exceptions of Virginia, Kentucky, Missouri, and Texas, are not making earnest and active efforts to help themselves. They appear exceedingly indifferent whether they have a good school system, a poor system, or any schools at all. They have almost universally so low a rate of taxation for schools as to be creditable neither to their liberality nor intelligence.

Let these States show some disposition to help themselves before the General Government steps in and pays for their schools.

We believe the only fair method to all sections of the country, and the one most conducive to an effective scheme of universal culture, should be based, first, on what the States themselves do for education; second, on the average attendance.

For example, let the fund distributed by the National Government be a bonus of a certain per cent. on the fund raised by the State, with a small additional bonus based on average attendance on the schools. Here we shall have some inducement for the State to be respectably liberal in raising funds, and an incentive, too, for the enactment of a compulsory attendance law.

These suggestions are submitted for the consideration of our educational contemporaries.

BECAUSE "about one million of people" petitioned Secretary of War Lincoln for the pardon of Sergeant Mason, who endeavored to shoot the assassin of President Garfield, General J. W. Phelps writes an article in *The Christian Union* of May 31st on "The need of improvement in school manners."

The gist of General Phelps's article will be found in the following extract:

"In accord with this statement, it appears that there are about a million of people in the United States who would have been satisfied to have Guiteau murdered in revenge for his killing of President Garfield, instead of having him tried and executed by the law of the land. I have heard similar wishes expressed in the case of Jefferson Davis—persons regretting that he was not shot when captured. A spirit of disconfidence in the law of the land as a means of justice and

protection is thus fostered, which of course tends to the subversion of the people's government, and the substitution of revenge and anarchy in its place.

"Now, we maintain that such barbarous ideas are the evidence of a want of proper training in our public schools. Do any of the teachers of these schools ever impress upon the pupils the sacredness of law? Are pupils taught to regard the laws of the people more sacred than anything else in the world except the Bible? We have never heard any evidence of such instructions being generally given in our schools. On the contrary, it is not at all improbable that among these numerous sympathizers with the blackest of criminals, a due proportion of school-teachers might be found. Their negligent work, at all events, can be seen in the case.

"There is a spirit among us, hostile to our American institutions, which is more occupied in efforts to put the Bible out of our schools, than in teaching a respect for the laws there. Indeed, we might expect that where the law of God is not permitted to come, there will not be much regard entertained for the laws of men.

"But setting aside the question of the Bible in our schools, we may reasonably claim that good behavior shall be taught there; and where a proper, systematic attention is paid to that subject, the pupils would not be likely to grow up with the idea that assassination and murder are preferable to the law. Nor would ladies and gentlemen come to regard the revolver as the proper instrument for securing protection to life and property. Between the habit of carrying the tomahawk and the pistol, where is the difference?"

There is unquestionably a certain amount of truth in these strictures. The schools, private as well as public, denominational as well as "godless," incubate only to a limited extent those lessons of virtue and morality so essential in the formation of a good character. We are willing to admit, in behalf of the public school-teachers of the land, the need for improvement; and with them we say, "Show us the how, and we shall obey." But that there is any connection between General Phelps's premises and his conclusion is simply absurd. After describing what he deems a barbarous condition of the public mind, he drags in the public schools by the neck to account therefor.

We think the most conclusive answer to his whole paper is this not very new but rather appropriate story:

It is related of a man whose wife was rather fond of gadding about, that one evening, wearied with her importunities, he told her to go, and not to stand on the order of her going. "Well," said she, "find out what kind of a night it is." He rushed impatiently to the first door—"Dark as Egypt, and smells of cheese," he cried.

So with General Phelps.

WE are much gratified at the answers to our circulars of June 29th, in regard to the adoption of this JOURNAL by County Boards of Education as a library book. Four boards only have met; and these have unanimously adopted our periodical. They are Napa, Los Angeles, Contra Costa, and Monterey.

From County Superintendents, with but one exception, we have a general and hearty promise that as soon as their Boards meet favorable action will be taken.

We are deeply gratified at this unanimity. It is eminently right and proper that every list of school library books should contain one or more educational journals.

And we believe that not only the past services of this JOURNAL to the cause of education in California, but its present merit, entitles it to a place on such a list. We believe all worthy the name of educators will take pleasure in making the due acknowledgment of this.

SCIENCE RECORD.

THIS RECORD is under the editorial charge of Prof. J. B. MCCHESENEY, to whom all communications in reference thereto must be addressed.

THE liquefaction of oxygen gas and nitrogen, the freezing of alcohol and sulphide of carbon, are the latest achievements of chemical science. This news comes to us from the laboratory of M. Wroblewski, in Cracow, Poland, who has given some interesting particulars in a dispatch to M. Debray, published lately in *Comptes Rendus*. By the use of liquefied ethylene, M. Wroblewski and K. Olszewski obtained the remarkably low temperature of -136°C ., equal to -212.8°F . Oxygen gas subjected to about this temperature, and compressed under a pressure of about 25 atmospheres, or 375 pounds to the square inch, was readily liquefied in glass tubes, and formed a colorless and transparent liquid, very mobile and resembling carbonic acid. Nitrogen was also liquefied, forming a colorless liquid. Alcohol was solidified at -130.5°C . or -202.9°F ., forming a white body. Sulphide of carbon froze at about -116°C . or -176.8°F .—*Scientific American*.

UNDER the generic term of paper, other substances used in combination with paper pulp are comprehended in general descriptions and occasional notices. When some wonderful story is read of the substitution of paper for wood, stone, the metals, for mortar, and plaster, and concrete, and other compositions, the reader should not understand that it is the material defined by Webster as "a substance formed into thin sheets or leaves, made of pulp obtained from rags, straw, bark, or like materials, pressed and dried." Paper, for so many and so differing uses as are attributed to it, must have something besides a vegetable pulp in its composition. In fact, the term "paper" is a misnomer for products that derive all their special qualities from foreign materials, held together by the paper pulp acting as a matrix. Thus, asbestos, in filaments, or powder, may be mixed with paper pulp to form a convenient unflammable and possibly an incombustible material, shaped while plastic to convenience for special uses. So clays in almost impalpable dust may become a part of the paper pulp production, and be a substitute for other materials. Other mineral substances may be mixed with the pulp—and, in short, there appears to be scarcely any limit to the uses that may be made of paper pulp mixed with foreign substances, molded and pressed to form.—*Scientific American*.

MEXICAN TIN.—The first ton of Mexican tin ever sent to this country was recently received. The metal is said to be bright, clear, and apparently of good texture. It came from Durango. The ores of placer origin are said to average 73 per cent. of smelted tin. Mr. Henry Freeman, an Australian tin mining engineer, has been for a year or more exploring the region between Chihuahua and south-western Durango in search of evidences of the tin lodes and placers spoken of by the old Spanish settlers, and has secured for St. Louis merchants and capitalists a considerable tract in the south-west quarter of Durango believed to contain tin ore in large quantities. The famous iron mountain of Durango is in the northern part of the district.

THE speed at which some wings are driven is enormous. It is occasionally so great as to cause the pinions to emit a drumming sound. To this sort the buzz of the fly, the drone of the bee, and the boom of the beetle are to be referred. When a grouse, partridge, or pheasant suddenly springs into the air, the sound produced by the whirring of its wings greatly resembles that caused by the contact of steel with the rapid revolving stone of the knife-grinder. It has been estimated that the common fly moves its wings three hundred and thirty times per second—i. e., nineteen thousand eight hundred times per minute—and that the butterfly moves its wings ninety times per second, or five thousand four hundred times per minute. The movements represent an incredibly high speed even at the roots of the wings; but the speed is enormously increased at the tips of the wings, from the fact that the tips rotate upon the roots as centers. In reality, the speed of the tips of the wing increases in proportion as the tips are removed from the axis of rotation, and in proportion as the wings are long.

C. L. S. C. AT MONTEREY.*

OUR newspaper reporting has rather gone by default. The Publication Committee is a little lame, and exceedingly busy domestically, but the C. L. S. C. is alive and in vigorous condition. The grove is full of San Joseans. Is there anybody left at home who would like to hear from us? We can only give a brief report to-day, but promise you our best next week.

The assembly opened according to programme with a grand old-folks' concert, under the care of those most competent musical ladies, Mrs. R. L. Higgins and Miss Walker. It was a brilliant and successful affair. All the musical talent on the ground which could be made available was pressed into service. Of course, the singers were quaintly attired, after the fashion of '76, and would have presented an exceedingly funny appearance had not the costumes of that period been recently revived in the way of Kate Castleton bonnets and plain full skirts to dresses. As it was, it was all very picturesque, and it was generally stated that the two lady managers never looked more charming than in caps and spectacles. The music was all of the olden time, and was incomparably good, eliciting the most stormy applause, and showing the best of taste and art. Professor Everett Pomeroy's grand piano did efficient service under the skillful hands of Mr. Clarence Urmy, and Professor Batchelder and Mr. Coddington ably supported their end of the programme. The hall has been beautifully decorated by Miss Ostrom of this place, and Mrs. Dawson of San Jose, and their numerous assistants. It looks like a grove of young pines, slightly conventionalized and decked with our national colors. Arches have been erected on the street leading to the Assembly Hall, which are also tastefully decorated and inscribed with the mottoes of the C. L. S. C.—"In God is Our Trust." "We study the Word and Works of God."

The assembly is very full, far larger than ever before. Of course it is chiefly composed of ladies, but there is quite a sprinkling of broadcloth. It has a dignified, mature air, but by no means grave or uncheerful. A reverent religious tone is given to the proceedings by the opening devotional exercises; and the most scientific speakers are evidently devout believers in the great author of nature.

President Stratton's opening address was full of the good sense, forcible thought, and kindly feeling which characterize all his public speaking. His subject was, "The Object and Aims of the C. L. S. C." It is a society for the suppression of ignorance. It proposes to supply the defects of early education, and answer the craving of mature minds for more varied and extended culture. He dwelt upon the many points of advantage which it offers in being under such wise and vigorous managers; in giving such excellent helps to those who wish to know where to find the best knowledge; in teaching economy of time; in its social and domestic charm. The latter point seemed to me particularly excellent. The fact of the different avocations of husband

* We publish the following letter written by Mrs. M. H. Field for the *San Jose Mercury*, and an excellent report of the recent meeting at Monterey, as our C. L. S. C. matter for this month.

and wife is a natural separating influence, but if they pursue the Chautauqua course, it gives them a common subject of thought and conversation, thus drawing closer the domestic tie. The same is true of all the members of a household. He drew a charming picture of a family all stimulating each other to high culture. At the close he cordially welcomed the members of the assembly, and was himself greeted with an enthusiastic outburst of Chatauqua applause, which is a simultaneous waving of white handkerchiefs.

Prof. Keep of Alameda, the conchologist of our State, then gave us a delightful lecture upon the "Mollusks of California," opening with a most poetical description of marine growths as unveiled by the receding tide; then a brief and well-illustrated talk upon mollusks, and a closing exquisite word-picture of Monterey Bay, Pacific Grove, and our assembly transferred to the beautiful, smooth surface of a shell. The afternoon was devoted to a microscopic soiree with Dr. Wythe of San Francisco, in which he gave all who came an opportunity to study marvelous things under his great microscope. The evening will have to be reserved for another report.

My last report ended with the first half-day of the assembly. The afternoon was given to what is called a "microscopic soiree," with Dr. Wythe of Oakland, who is the veteran friend and chief lecturer at all our summer assemblies. He brings with him to the grove his magnificent microscope, which magnifies ten thousand times, and is one of the principal objects of interest. One can imagine the delights of an hour spent in examining through this marvelous instrument specimens of living tissue, bits of the wing of a moth, the eye of a fish, or any of the minute growths of the animal or vegetable world. In the study of marine growths the microscope is especially valuable, and the crowds who flock around the great instrument and listen eagerly to the Doctor's explanations testify to the general interest and appreciation.

The evening was made memorable by a lecture from Rev. A. S. Fiske of San Francisco, who took for his subject "Work and Play," a theme especially adapted to the occupations of this great assembly of students, who are not quite sure whether they are working or playing. This lecture has been given in San Jose, and was highly appreciated there, but in listening to it a second time, we only felt anew the grandeur of this portrayal of true work and true play. The brilliant dramatic style of the speaker riveted attention, while his matchless descriptions of manly sports, forest scenes, and wildwood employments and recreations would have stirred the blood of the most apathetic human being. It was listened to with rapt attention, although it was over an hour long—a breathless silence indicating that the audience were fairly spell-bound by the wonderful eloquence of the speaker.

Second day—Friday morning at 9 o'clock, the C. L. S. C. folk gathered in large numbers to hear Dr. Wythe lecture upon the subject of "Botanical Geography," or the vegetable clothing of the world. He described the various growths which characterize the different latitudes and altitudes. Each plant finds its own habitat all over the globe. Climate and altitude are the

two great forces which control vegetable products. Standing upon a high mountain, like Chimborazo, one can see how altitude defines each belt of vegetation, from lichens, mosses, and "red snow" at the summit down to the tropical vine at the base. There is no intermingling of species, no transmutation going on, and he considered this proof sufficient that there never has been any such phenomena. The German scientist Griesbach has made a specialty of botanical geography, and divides the earth into twenty-four distinct botanical regions. Dr. Wythe described each of these briefly, naming the principal growths and giving some of the reasons, either climatic or otherwise, which caused these varied productions. As usual, he presented his subject in a clear and simple manner, yet condensed a vast amount of valuable information into what seemed a pleasant, familiar talk.

The second hour was occupied by Miss Cornelia Walker of the State Normal School, who presented an admirable paper upon "The Growth of the English Parliament." In a picturesque manner, and yet with accurate care, she sketched the history of this great national legislature from the time when the bawns of England demanded of King John that great bulwark of rights known as "Magna Charta" down to our own day, when the "Commons" govern the land. Her essay was brightened with incident and illustration, and her manner of reading graceful and spirited.

The evening was occupied by Dr. Wythe. The subject of his lecture was "Mind and Brain." He spoke first of that wonderful vital force resident in the human system which causes growth, repairs injuries, keeps all the processes of life in activity. No one has ever found its abode. It eludes our most careful analysis. If men could find it, that would prove it to be material. Many eminent scholars think the soul is identical with this vital force. Mind permeates the whole body, and is not confined to the brain, though this is its chief sensorium. There is no truth in the theory that certain qualities reside in given localities of the brain. This has been abundantly proven by experiment. But the brain is as yet a *terra incognita*. We know no more of it than of the moon. Giving a long-sounding name to a part of the brain doesn't explain or reveal its secret. Great injuries to the brain have frequently not affected the mind. Of this Dr. Wythe gave many striking illustrations from medical works and his own experience. He is more and more convinced that "the soul is master of matter, not its slave; a distinct entity, immaterial, immortal." It is impossible to summarize so grand and condensed a lecture.

Saturday morning the Doctor gave a very interesting talk about the uses of the microscope, showing how it aids in every department of science, and in every pursuit and profession. The microscope is not a new instrument. They have been found in the ruins of Nineveh, but the lens has been perfected in the last century. The speaker urged upon all the study and use of the microscope, spoke of its cheapness, the ease with which it could be used, and the marvels which it reveals. It is the true Aladdin's lamp, more wonderful than that of the Arabian Nights. He urged all to become original investigators, and set forth in glowing colors the delights which follow the use of the

microscope, and the noble thoughts and habits of study it inspired. At the close Dr. Wythe bade the assembly good by, greatly to the regret of all. His pressing professional engagements would only permit him to stay three days, and therefore all his lectures were crowded into this space.

THE PUPILS' CORNER.

THIS department, which will consist of new, and in many cases original, declamations, poems, dialogues, music, and games, suitable for Friday afternoon exercises, will be under the editorial charge of MRS. ALICE LYSER. Teachers who have matter for the department, or suggestions in regard to it, are solicited to send communications to her address at this office.

THINGS PUPILS SHOULD KNOW.

CREASY'S FIFTEEN DECISIVE BATTLES.

1. Marathon, 490 B. C. Here the civilizations of Asia and Europe met for the first time in conflict of arms. The Persians were defeated by the Greeks.
2. Syracuse, 413 B. C. By the assistance of the Spartans the Athenians were defeated with immense loss.
3. Arbela, 331 B. C. Here the contest begun at Marathon was ended in the complete overthrow of Persia by Alexander.
4. Metaurus, 207 B. C. Here Hasdrubal was defeated while on his way to re-enforce his brother Hannibal.
5. Teutoburg, 9 A. D. Here Arminius liberated Germany from the Romans.
6. Chalons, 451 A. D. Attila, the Hun, was here defeated.
7. Tours, Oct. 10, 732. Here the victorious career of the Mohammedans was checked, and Europe saved to Christianity.
8. Hastings, Oct. 14, 1066. England was conquered by the Norman-French.
9. Orleans, April 29, 1429. English defeated by the French.
10. Sea fight, Spanish Armada defeated by the English, 1588.
11. Blenheim, August 13, 1704. English and Austrians over the French and Bavarians.
12. Pultowa, July 8, 1709. Charles XII. of Sweden defeated by Peter the Great.
13. Saratoga, October 17, 1777. The first great victory of the American Revolution.
14. Valmy, September 20, 1792. The success of the French Revolution assured.
15. Waterloo, June 18, 1815. The French defeated by the English.

MATHEMATICS DEPARTMENT.

This department is under the editorial charge of PROF. HAMILTON WALLACE, Superintendent of the Salinas City schools. All communications in reference thereto should be addressed to him.

DULL PROSE MADE INTERESTING.

IT is the opinion of business men that one of the most difficult things to do in practical life is to add long columns of figures rapidly and correctly; so, as most pupils have no taste for adding, I have for years had an adding-match for the first *class* exercise in the morning. By skillful management, I find that pupils become intensely interested in the exercise, and gain remarkably in accuracy and in the ability to command their own minds.

Thinking you may consider a description of our method of conducting the Arithmetic Match worthy of a place in your JOURNAL, I send it to you, together with an example we have added in our school at Florence.

Ten of my pupils added this example within two minutes' time, not one failing to get the correct sum. The remaining twenty of them added the example within four minutes, and only four failed to obtain the correct answer.

Our plan of conducting the match is as follows: after two pupils have chosen sides, I give the numbers orally, and write them at the same time on the blackboard, while each pupil writes the same on his slate. On writing the last number, I give the signal, when each pupil adds the example and brings his slate to a designated place, where one is laid upon the other as they are brought in. When all the slates are in, we turn the pile over, bringing the example that was added first to the top of the pile. If this answer is correct, we mark it one hundred. If the next slate is correct, it is marked ninety-nine, and the next one ninety-eight, and so on, giving each one that occupied a little more time in adding one less for his credit. At the close of the match, the sides place in a list opposite the pupil's name the credit obtained by him in the match. If any pupil has a single figure wrong, his credit is zero.

Each morning we add together all the credits obtained by the pupils chosen on the respective sides, and find the difference between these amounts, thus showing how much one side is ahead of its competitor.

These two lists we keep until the end of the week, when we add all the credits obtained by each pupil. This amount is his credit for the week. Then we find the whole amount of each side, and the difference between these amounts shows how much one captain's side has beaten the other.

GEO. W. HOWARD.

EDUCATIONAL INTELLIGENCE.

ALAMEDA COUNTY.—C. V. Osborne, late principal of the Alvarado school, has been elected to Centerville at a higher salary.

Mr. Osborne is an excellent teacher, and Centerville is fortunate in securing his services.

The teachers just elected for the Alameda schools are as follows:

Alameda School—Principal and teacher of Third and Fourth Grade, Mr. E. P. Smith; Fifth, Miss Essie Seymour; Seventh, and Eighth Grades, Miss Nellie Smith.

Porter School—Principal and teacher of Eighth Grade, Mrs. J. Burge; Low Eighth, Miss L. Megerle; Seventh Grade, Mrs. G. Clement; Sixth Grade, Miss Mabel Griswold; Fifth Grade, Miss May Millington; Fourth Grade, Miss Minnie Cohen; Third Grade, Miss L. K. Taney; Second Grade, Mrs. K. M. Hare.

Encinal School—Principal and teacher of Seventh and Eighth Grades, Mrs. N. J. Ashton; Fifth and Sixth Grades, Miss Kittie Heath.

Bay Farm Island—Miss Jennie Gibbs.

High School—Principal and teacher of Senior Class, Josiah Keep; Vice Principal and teacher of Middle Class, J. H. Eickhoff; Assistant and teacher of Junior Class, Mrs. J. Worthen; Eighth Grade, Mrs. A. C. Paris; Seventh Grade, Miss Octavia Wetmore; Fifth and Sixth Grades, Miss E. L. Stoddart; Fourth Grade, Miss Maud Merrill; Third Grade, Miss N. T. Fletcher; Second Grade, Miss Minnie Sabin; First Grade, Miss A. H. Cohn.

West End School—Principal and teacher of Eighth Grade, Mrs. A. Wymore; Seventh and Sixth Grades, Miss M. H. McLean; Fourth and Fifth Grades, Miss M. Fitzpatrick; Second and Third Grades, Miss B. T. Volmar.

Teacher of Music—Washington Elliott.

MONTEREY COUNTY. — Salinas City schools opened last Monday with a large attendance of scholars. The corps of teachers is W. H. Housh, Principal; Miss Etta Dorn, Miss Fitzsimmons, P. E. Colbert, Effie York, Maud Soule, Etta Lloyd, and

Mrs. F. L. Landers, who is teacher up-stairs in the building on Main Street, secured and furnished by the Board of Trustees for that purpose.

The public schools of Monterey will open on July 16th. All the old teachers have been re-engaged. The trustees believe in keeping good instructors—like Prof. Riley and his assistants—when they once get hold of them.

The Blanco school opened Monday, July 9th, with Miss Rachel Miller as teacher.

Supt. M. J. Smeltzer is beginning his work as superintendent of this county, in an energetic, intelligent manner that promises the utmost efficiency for the schools. We see that his Alma Mater, Roanoke College, Virginia, has conferred the degree of M. A. on him. Supt. Smeltzer is a graduate of that college, class 1870.

SANTA CLARA COUNTY.—On the 29th of June, the Lexington school closed with an exhibition, which was a grand success. The school-room was handsomely decorated with flowers and ferns. Much credit is due to the teacher, Miss J. Desimone, for her earnest labor during the past year. She has shown herself to be one of the most zealous workers in her vocation in our State.

Superintendent Chipman's report of the census returns for Santa Clara County for the year ending June 20th, 1883, shows the total number of children between the ages of 5 and 17 years to be 4,207; of these, 2,276 are boys, 1,931 girls. There are 13 colored children and 2 Indian. Of the whole, 2,965 have attended public schools during the year, and 315 have attended private schools. In the public schools there were 2 colored children and 1 Indian. There were 922 white children, 4 colored children, and 1 Indian child who attended no school. There are 41 Chinese children, none of which are attending any school. But one deaf and dumb child is reported.

YUBA COUNTY.—At a meeting of the City Board of Education of Marysville last evening the annual election of teachers took place. No changes were made. The staff

f teachers re-elected is as follows: E. K. Hill, High School; Mrs. Emma Hapgood, A. Senr. Grammar; E. H. Butler, B. Senr. Grammar; Mrs. E. Amelia Coult, A. Junr. Grammar; Miss L. P. Rumery, B. Junr. Grammar; Miss Sadie Subers, A. Primary; Miss Ida Atchison, B. Primary; Miss Eva Burt, A. Junr. Primary; Miss Mary E. Kertchem, B. Junr. Primary; Miss Annie Carr, A. Sub-Primary; Miss Amy Davidson, B. Sub-Primary.

In Marysville there has been a falling off in the number of school children for several years past. The total number this year is 706.

The total number of school children, *i. e.* between 5 and 17, in Yuba Co., is 2,149.

SISKIYOU COUNTY.—Siskiyou had one of its old-time gatherings at the Teacher's Institute held in Yreka, June 12, 13, 14, and 15.

Supt. H. A. Morse presided; and Prof. Childs of the Normal and Prof. D. C. Stone of San Francisco attended from abroad.

The exercises of the Institute were exceedingly interesting, and participated in by the teachers of the county with the zest and intelligence of which the editor of the JOURNAL has been so often personally cognizant.

The program of exercises, briefly outlined, was as follows:

Address of Welcome, by our old friend John Kennedy; Reading, by Miss Carrie Hayden; Penmanship, by Prof. C. W. Childs and Prof. D. C. Stone.

School-rooms, their inside surroundings, Miss Minnie Hearn.

Some Faults of Teachers, by Prof. D. C. Stone.

Select Reading, European Guides, by Dr. J. Ashton.

Prof. Childs took up the subject of penmanship, and having organized the Institute into a class, proceeded with remarks and blackboard illustrations, being aided as a class by Miss Macauley, Dr. Ashton, Wm. Duenkel, Miss Minnie Hearn, Mr. Hotchkiss, Miss Carrie Hayden, Miss Crawford, and Miss Kate Cooley.

Grammar was taken up by Miss Kate Cooley; Book-keeping, by Prof. Childs; Morals and Manners by Miss Nellie Wetmore; History, by Prof. Childs.

Music, by Miss Mary Cavanaugh; Arithmetic, by Prof. D. C. Stone; Physiology, by W. H. Laird; History, by Professor Childs.

Better Attendance, and How to Secure It, Lizzie Neilon; discussion; Hygiene, Dr. Ashton; discussion; History, Prof. Childs; discussion.

Three months in Europe, Prof. D. C. Stone.

The talks and lectures of Profs. Childs and Stone were highly acceptable to the teachers, who, on the other side, made a highly favorable impression on the conductors.

Among the resolutions passed was the following, for which the JOURNAL returns its cordial thanks:

Resolved, That THE PACIFIC SCHOOL JOURNAL, edited by Albert Lyser, has hitherto been a satisfactory advocate and promoter of the welfare of our school system, and therefore, that it is the sense of the Institute that the said JOURNAL receive the cordial support of the teachers of Siskiyou County, irrespective of any action taken by other educational bodies.

NEWS RECORD.

Foreign and Domestic.

During severe fighting at Miragoane, Hayti, General Casimir, the rebel leader, was killed, and the government forces are now in possession of the lower portion of the city. Twenty-four insurgent ringleaders at St. Louis and ten at Cavallon were shot June 14.

The reports about Tonquin are conflicting, but both the military and the diplomatic arms seem to be moving. For the present the French occupy a fortified triangle on the lower Red River, the points being Hanoi, Namdinh, and Hainhong. Great Britain has addressed a note to France, expressing the hope that the Tonquin difficulty will be amicably settled.

The Right Rev. John William Colenso, D. D., Bishop of Natal, South Africa, died, aged sixty-nine years. He was a voluminous author on theological subjects, and published a work on the Pentateuch which was deemed so heretical that he was temporarily deposed from his see.

Columbia College voted, through its trustees, to adopt a plan for the education of women similar to that of the Harvard Annex.

Kelly, the fifth and last of the Phoenix Park murderers, was hanged in Dublin.

War has broken out between the Turks and the Albanians.

A score of Arabi Pasha's men were convicted of complicity in the burning of Alexandria at the time of the bombardment, and two of them were hanged. Much indignation thereat was expressed in the British House of Commons, and an attempt was made to force the Government to interfere.

Official information was received of the complete success of General Crook's expedition against the Apaches in Mexico. He had not been heard from for six weeks, but in all that time did not lose a man, though he captured several hundred Indians and a large amount of plunder.

Governor Butler accepted an invitation to attend the Harvard Commencement, and made a capital speech, which won him much applause.

News from Tonquin confirms the report of the French defeat, and points still more positively to active warfare.

It is reported that the Chileans are beginning to retire from the north of Peru, where Iglesias is now the acknowledged chief.

The report comes from Paris that the Count de Chambord is so ill at Frohsdorf, near Vienna, that a fatal result is anticipated.

The city council of Paris has made an appropriation of 20,000 francs to be expended in sending a delegation of workmen to the Boston foreign exhibition.

The Prussian Government continues to deny the assertion that it intends to establish a colony in Mexico.

The Emperor of Germany proposes to give 125,000 marks toward founding a hospital on the island of Norderney, if an equal amount is subscribed from other sources.

Great alarm prevails in various countries over the terrible cholera outbreak in Egypt; and precautionary measures against its introduction are being taken. The daily death rate in Egypt is running up to five or six hundred.

Cable dispatches of June 25 report a frightful disaster in the town of Dervio, on the shore of Lake Como. It is stated that while a performance was in progress at a puppet theatre the structure took fire and

was entirely destroyed. Forty-seven persons were killed and twelve injured.

British ship-owners insist upon a new Suez Canal, notwithstanding the indignant protests of the shareholders of the Suez Canal Company.

Through the efforts of Mr. Gladstone, differences have been amicably arranged by the appointment of De Lesseps as Superintendent of the proposed canal, and the loan of \$40,000,000 by the British Government towards its construction.

Educational.

At Lancaster, Mr. A. D. Ditmars left \$75,000 for the "foundation of a school for the education of children, for such professions or occupation as they show a talent for."

The number of applicants for admission to the Normal College examination just closed was 1,033. Of this number eighteen were rejected as not being of the proper age—fourteen years—and of the 1,015 examined 964 passed the ordeal successfully. The examination began on Monday, the 4th inst., and was continued for three days, under the personal supervision of President Hunter. The list of studies in which the applicants were examined embraced reading, spelling, and definitions, etymology, mental and written arithmetic, geography, English grammar, composition, history of the United States, algebra, elementary book-keeping, penmanship, and drawing. The results of the examination at both the Normal and New York Colleges prove conclusively that our metropolitan public schools turn out as bright a lot of scholars as can be found the world over. The number of applicants failing to pass examination—174 out of 989 in the New York and 51 out of 1,015 in the Normal College—is a gratifying evidence of the fact.—*N. Y. Journal.*

The Louisville School Board have been making themselves unpopular by passing the following at their last meeting: "Resolved, That the salaries of the seven senior professors in the Female High School and the principal teacher of the normal class be fixed at \$90 per month, or \$900 per year, to begin with the commencement of the fall season."

English type and script will probably be substituted for the German black letter in the German school-books of St. Louis. It will be remembered that this measure has been advocated in Germany for many years, but thus far without success.—The Board has ordered that there shall be no more corporal punishment in the schools of that city after Sept. 1. We are sorry for the Board.

The new principal of the New Hampshire State Normal School is Prof. C. C. Rounds, of the Normal School at Farmington, Me.

Sewing is to be taught in the New York schools.

The Boston School Board, at a recent meeting, adopted a resolution requesting the masters of grammar schools to use their influence with pupils to induce them to dress more plainly at commencements. Such a request would be in order almost anywhere, but we fear it would be little heeded.

Personal.

Jesse A. Melcher, acting president of the San Francisco Board of Education, is an old teacher, who by nearly thirty years of varied and successful experience, is singularly well fitted for his important position.

A native of Maine, he began teaching in winter schools, while a student at Bowdoin College, of which institution he is an A. B.

In 1848 he went to Alabama, where he engaged, continuously, in educational work in some of the leading colleges and academies of the State. First connected with Dr. McDougall's academy at Wetumpka, he then acted as assistant principal in the Montgomery Male Academy, afterwards taking a leading position for nine years in Howard College. He was also principal of the Claiborne Female Institute and connected with the Judson Female Institute, all in that State.

At the close of the war, Mr. Melcher came North, and settled in Milwaukee, where for several years he took the position of leading English teacher in the celebrated Engelmann school of that city.

He left teaching while in Milwaukee to go into the life insurance business, and now occupies the position of General Agent for California of the United States Life Insurance Company.

Mr. Melcher is a scholarly man, modest in his demeanor, but thoroughly master of the educational situation.

A teacher by experience and observation, he understands what good teaching is; and from a wide observation elsewhere he thoroughly understands the needs of the San Francisco department.

We look for some decided improvements in the department from his suggestions and by his aid.

Prince Krapotkine, the Nihilist, kills time in his prison at Lyons by teaching algebra, geometry, and geography to his fellow-convicts.

Is genius inherited through fathers or through mothers? Some thinkers, like Mr. Francis Galton, affirm that it can be transmitted only by the father; others, like M. De Lesclure, in his treatise entitled *Illustrious Mothers*, maintain that the descent is exclusively through the feminine branch of the house. Mr. Henry Ward Beecher seems to side with the latter class of dispu-

tants, for in his recent septuagenarian address he said, "From my father I received a sound stomach, from my mother a serene spirit."

In return for his services in the field of comparative philology, Professor W. D. Whitney, of New Haven, Connecticut, has been elected an Associate to the Lyncean Society of Rome.

Mr. McMaster, the author of the new history of the United States, is only thirty years old, was educated at the public schools in N. Y. city, graduated at the College of the City of New York in 1872, appointed instructor in Civil Engineering in Princeton College in 1877, and held that position until very recently, when he resigned in order to finish his history. It is interesting to know that Mr. McMaster's first volume was half written before Green's work appeared.

Senator Edmunds, who has been on a visit to this coast, has climbed Mount Shasta.

Miss Kate Sanborn has resigned her position as Professor of English Literature at Smith College, and is to confine herself hereafter entirely to literary work.

General.

Dr. Krishaber, who died recently in Paris, was the man who demonstrated that tuberculosis, or consumption, could be transmitted by inoculation. He inoculated fourteen monkeys, and twelve of them died in from 34 to 218 days. He proved also that consumption is contagious, or rather infectious. A small healthy monkey was put into a cage with several monkeys who had been inoculated. One of the latter became much attached to him, and almost constantly held him in his arms. Nine days after his death the small monkey died too, and an autopsy showed that his disease was consumption. The cage was then emptied and disinfected, and twenty-seven fresh monkeys put into it. None of them took the disease.

A French scientist has submitted to a learned society the results of his study of the effect of tobacco on boys. Out of thirty-seven boys, between the ages of nine and fifteen, who used the weed, twenty-two showed symptoms of a distinct disturbance of the circulation, impaired digestion, palpitation of the heart, bruit at the carotids, sluggishness of intellect, and a craving for alcoholic drink. Eleven of the lads had smoked for six months, eight for one year, and sixteen for more than two years.

The color question, which caused considerable comment at the Revere House, Boston, a year or more ago, has come up again in Chicago, where on Tuesday, June 26, N. H. Ensley, a negro, professor in Howard University, Washington, a graduate of Newton Theological Seminary, and a learned Greek scholar, was ejected from a public restaurant at Chicago on account of his color.

LITERARY NOTES.

The *Christian Union* has lately stepped into the front rank of religious journalism in this country, and is a paper which the intelligent and thoughtful Christian layman cannot afford to do without. It has taken the most advanced ground possible within the statement of Christian truth; has admitted to its columns the discussion of the new interpretations of the old beliefs without departing from these beliefs in their integrity. Hence, its weekly appearance has come to be of some consequence to those who are following closely the religious thought of the age. It is honest and loyal to the truth, while open to the new application which the old truth is now receiving at the hands of the best thinkers. It is edited on the English plan, which is that more than one writer shall speak his thought in its editorial columns without his name to what he writes. This gives the paper a representative character, and makes it the organ of living thought.

The *North American Review* for August opens with a very spirited discussion of the subject of "Moral instruction in the public schools," by the Rev. Dr. R. Heber Newton, who offers a practical scheme for conveying ethnical instruction without reference to religious tenets, and the Rev. Dr. Francis L. Patton, who maintains that the Bible must be made the basis of all moral teaching. Henry D. Lloyd exposes the tricks and frauds of speculation in grain, which operate to make bread dear, and maintains that they should be repressed by law, as being flagrantly in opposition to public policy. "Woman in Politics," by ex-Surgeon-General Wm. A. Hammond, is a caustic discussion of certain facts of nervous organization which, in his opinion, render the female sex unfitted for participation in public affairs. Hon. Francis A. Walker reviews "Henry George's Social Fallacies," criticising in particular his doctrines regarding land-tenure and rent. The evils resulting from "Crude Methods of Legislation," both national and State, are pointed out by Simon Sterne. Charles F. Wingate writes of the "Unsanitary Homes of the Rich," and there is a joint discussion of "Science and Prayer," by President Galusha Anderson and Thaddeus B. Wakeman. Published at 30 Lafayette Place, New York, and for sale by booksellers generally.

The leading articles in the *Popular Science Monthly* for August are: Changes in New England Population, by Dr. Nathan Allen; The Anarchy of Modern Politics, by W. D. Le Sueur, B. A.; On Radiation, by Professor John Tyndall, F. R. S.; Technical Education, by A. Curtis Bond; The Remedies of Nature—Climatic Fevers, by Felix L. Oswald, M. D.; The Formation of Sea-waves, by Emile Sorel; Mental Capacity of the Elephant, by William T. Hornaday; The Chemistry of Cookery, by W. Mattieu Williams; The Geological Distribution of North American Forests, by Thomas J. Howell; Perrier on the Theory of Descent, by M. A. Espinas; Our Indian Mythology, by J. Henry Gess; Locusts as Food for Man, by David A. Lyle, U. S. A.; A Natural Sea-wall, by Louis Bell (Illustrated); The

Telephone, with a Sketch of its Inventor, Philip Reis, by W. F. Channing, M. D. (Illustrated, and with a portrait).

Lippincott's Magazine for August contains A Holiday on French Rivers, by Theodore Child, with illustrations; Government Engineers, by Frank D. Y. Carpenter; The Soul-sisters, a story, by Charles Dunning; Hydrophobia, by Charles W. Dulles, M. D.; The American Eagle (In the poets), by Phil Robinson; A Moose-hunt in the Ottawa Valley, by George W. Pierce; Sea-fancies, by Charles L. Hildreth; The Idol and the Idolaters, a story, by E. Treffrey Duykwood; A Day at Lake Tahoe, by John Vance Cheney; The Story of Hannah Lightfoot, by T. Fitzgerald Molloy. Also a continuation of Mary Agnes Tincker's serial story, The Jewel in the Lotus. Other short stories, poems, and articles of interest upon current topics.

Among the contents of *St. Nicholas* for August are: The Beautiful Day, poem, Margaret Johnson, illustrated by the frontispiece; Lindy, Charlotte A. Butts, two illustrations, by W. Taber; The vain old Woman, Arlo Bates; The young Ship-builder, picture, drawn by J. H. Cocks; The Tinkham Brothers' Tide-mill, Chaps. XXX., XXXI., and XXXII., J. T. Trowbridge, illustration, by J. H. Cocks; Recollections of a Drummer-Boy, Part III., Harry M. Kieffer, three illustrations, by W. H. Shelton; Zintha's Fortune, Kate Tannatt Woods; The Lady of the "Chingachgook," Rev. Charles R. Talbot, three illustrations by H. F. Farny; In Summertime, poem, illustrated, Bessie Hill; Work and Play for Young Folk, VIII., Fly-fishing for Black Bass, Maurice Thompson, illustration, by Geo. F. Barnes; The Home-made Mother Goose, Adelia B. Beard, eight illustrations by the author.

The *Century* for August offers, in addition to the most entertaining part yet given of Mr. Howells's "A Woman's Reason," the first part of a stirring romance called "The Bread-winners," which will run through six numbers of the magazine. Humor is the characteristic of the short stories, which comprise "The New Silk Dress Story," by James D. Hague; "The New Minister's Great Opportunity," by the author of "Eli" and "The Village Convict"; and another group of Joel Chandler Harris's "Nights with Uncle Remus." "Bob White, the Game Bird of America," is the subject of the first illustrated article. It is by Prof. Alfred M. Mayer, of the Stevens Institute of Technology, who is also a "scientific" sportsman, and who gives practical suggestions for shooting "quail"—a misnomer, as the writer shows, for the bird which has acquired the popular and fitting name of Bob White. In "Under the Olives," Mrs. Bianciardi describes olive culture in Southern Europe, and gives interesting information regarding the successful efforts to grow olives in California. A humorously illustrated article is Robert Adams, Jr.'s description of "The Oldest Club in America," the Philadelphia Fishing Association, known as the State in Schuylkill, which resembles the London Beefeater Club. In "The Present Condition of the Mission Indians in Southern California" (profusely illustrated), H. H. concludes

her historical sketch of priestly devotion to the aborigines and of governmental neglect and injustice. The poetry of the number includes five "Songs of the Sea," by different writers, accompanied by a full-page engraving, "The Rock in the Sea," by Elbridge Kingsley, which was drawn with the graver; two pages of "Love Poems by Louis Barnaval," edited by Charles de Kay; a page of "Poems" by Robert Underwood Johnson; "The Voice of D. G. R." (Dante Gabriel Rossetti), by Edmund W. Gosse, and other poems.

The *Atlantic Monthly* for August contains A Roman Singer, III., IV., by F. Marion Crawford; The Trustworthiness of Early Tradition, by Brooke Herford; En Province, II., by Henry James; Glints of Nahant, by Charles F. Lummis; The Hare and the Tortoise, by Sarah Orne Jewett; Academic Socialism, by Herbert Tuttle; To a Hurt Child, by Grace Denio Litchfield; Newport, III.-V., George Parson; Lathrop; The Gift of Tears, by Mrs. S. M. B. Piatt; Reminiscences of Thomas Couture, by Ernest W. Longfellow; In the Old Dominion, by F. C. Baylor; Study of a Cat-Bird, by Olive Thorne Miller; Around the Spanish Coast, by Charles Dudley Warner.

Harper's Magazine contains the following interesting papers, a portion only of its August number. The Heart of the Alleghanies, by Geo. Parsons Lathrop; American Horses, by Hugh Craig, Illustrated; Vallombrosa, by Mrs. E. D. R. Biancardi, Illustrated; The German Crown Prince, by George Von Bunsen, Illustrated; The Canadian Habitant, by C. H. Farnham, Illustrated; War Pictures in Times of Peace, by R. F. Zogbaum, Illustrated; A Town Garden, Poem, by Margaret Veley; A Castle in Spain, a novel, Part IV., with two illustrations by Abbey; The British Yoke, by T. W. Higginson, with eight illustrations; The Modern Yacht, by Lieutenant J. D. J. Kelly, U. S. N., with nine diagrams; Discipline, a poem, by T. B. Aldrich; Best-Laid Scenes, a story, by Harriet Prescott Spofford.

Joel Chandler Harris is writing a new series of his inimitable Uncle Remus stories, many of which will appear in *The Century* magazine before they are issued in book form. Their title in the magazine, at least, will be Nights with Uncle Remus, and the half-dozen stories which will form the first group, in the July *Century*, will show, it is said, that the loquacious, old Uncle's humor and ingenuity and Brother Rabbits's Trickery have suffered no diminution since they last amused the readers of *The Century*.

The Wheelman for June is a very entertaining number, the illustrations and articles being quite up to the standard of the other monthlies. The contents are, The Massachusetts Bicycle Club. Illustrations, drawn by C. E. Reed, Chas. Copeland, and A. B. Shute; A Cycle of the Season, drawings by Jo. Pennel; A shadow Love, Chapters XIV-XVI; How We Went to Monaco; At the Banquet; A Pilgrimage A-Wheelback; From April to June; The

Home of the Spring; Why the Club Avoid the D-Road; A Deacon's Opinion; A Morning Ride; The Bicycle and Tricycle for Physicians and Patients; Left, or How the Bicycle Saved my Client; Coasting on the Jersey Hills.


A PARADISE IN SOUTHERN CALIFORNIA.

This is the title, in part, of a book of 130 pages, double columns—published at Pasadena, Los Angeles Co., and is descriptive of the localities of Pasadena, San Gabriel, La Cañada, and Sierra Madre, with general reference to all Southern California. It is made of contributions of about twenty different persons, residents mostly in the San Gabriel Valley, and interested in its prosperity. The object is not speculative exactly, so much as to give information that may be relied on to tourists and such others as may wish to settle in Southern California, and to give residents interesting descriptions of their homes to send to friends East. The book was prepared at Pasadena, and relates mostly to that locality, and gives, of course, glowing accounts of the vineyards, orange groves, climate, and bee culture, etc., of that favored spot. Perhaps if any spot in California merits the title of Paradise, San Gabriel Valley has as good claim as any. We do not think any one reading this book will say on his first visit to Pasadena that the statements are rose-colored.

NEW ELOCUTION AND VOCAL CULTURE
By Robert Kidd, A. M. Cincinnati and New York: Van Antwerp, Bragg & Co. 1883. pp. 504.

This is the revised work of a ripe scholar, an experienced teacher, and an evident master. For nearly thirty years Prof. Kidd has ranked deservedly high among the best practical teachers of Elocution in America. This book promotes him to the very front. His explanations are clear and brief; his arrangement naturally progressive; his directions necessary, sensible, and effective, and his selections more varied, more copious, and of a higher standard than those of any rival yet brought to our notice. Sound sense, good judgment, fine taste, and lofty ideals mark every page. For classroom work, private pupils, or self-instruction, it is both the latest and the best working manual of elocution. K.

There is no longer any excuse for the existence of the poor teacher since good books have grown so cheap. THE TEACHERS' AND STUDENTS' LIBRARY, published by T. S. Denison, of Chicago, is a complete cyclopedia in one large octavo volume, for the very moderate price of \$3. It is both a manual and guide. It is surprising that so much valuable matter, on twenty-six branches, can be put into such compact form. It is accurate and up to the times.



THE PACIFIC SCHOOL JOURNAL.

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THE MODOC SCHOOL.

CHAPTER IV.

BEE CULTURE.

THE ability to earn a fair living with comparative ease helps a person's morals more than most people may suppose. It is easier for a well-to-do man to be honest and virtuous than it is for a poor man to resist temptation.

Nor should a person be able to earn a living from one pursuit only, for though he may be more skillful if he confines himself to one specialty, yet it often happens that there may be no demand for his specialty. Still, Glen taught his pupils that it is much better to have one trade or profession, and stick to that, than to wander about, dabbling at this thing and the other, and making a success of nothing. As most of his pupils would probably be so that they might keep bees for pleasure and profit in their after life, in connection with other pursuits, he resolved to make good bee-keepers of them.

Here let me say, that I know of no out-of-school employment for a teacher which is pleasanter than bee-keeping, combining, as it does, pleasure and profit to a considerable degree.

After the first cost of starting, an apiary need cost but very little except in a good season, when the profits are often two or three hundred per cent on the money invested. There would be several advantages in having an apiary to which to resort during Saturdays and holidays. It would tend to keep the teacher permanently in one county. It would be a safe place to invest his earnings and his spare time. It would be a change from the work of the school-room. He might become more attached to Natural History and other kindred studies. It would tend to make his

teaching more practical. If he failed to get a school he would have some thing to do and a home to go to. After his apiary was properly built up it might bring him more income twice over than his teaching could. The disadvantages of bee-keeping are comparatively few. First in importance, with some, would be the isolation necessary for a good bee-camp. The wearing of a bee-veil is somewhat injurious to the eyes. The stings, which are the most disagreeable to a beginner, the bee-keeper soon learns to care but little for, and with proper care he need get but few. With a proper fence around the apiary to protect it from animals, and a wind-brake and weights to keep the hives from blowing over, the bee-keeper does not need to go near his apiary for more than half the year.

Glen gave each of his pupils two colonies of bees, and directed them to place the hives on a hill facing the south-east, where it would be warm and the bees would get the early morning sun.

The colonies were in the common Langstroth hive, but Glen thought it would be well to have each pupil make his own hive and frames, so he got the hives sawed out in the Pacific mill, and each pupil nailed up five hives under his supervision, keeping their work true and square. In order that they might handle the frames more easily, he had them run the narrow way of the hive, which made them very nice for children to handle. This hive is sometimes called the Los Angeles hive, and has some advantages over the Langstroth.

Each child, when the honey flow began, transferred the combs from the old hives to the new ones, keeping only worker combs, and melting up the drone combs. Then the empty frames were filled with new foundation, and the bees soon built this into nice straight worker combs. Expeditions to hunt for bee-trees and bee-caves had been made in the hills, and quite a number of swarms had been found by the sharp young eyes, most of the colonies being located in squirrel holes, gopher run-ways, or in rifts in the rocks.

In lining the bees to their homes, Glen found they did not move in direct lines always, but took advantage of currents of air, flew around points of a hill when they were loaded with honey, and behaved more like sensible creatures and less like machines than the books state.

After the children had done any work, it was Glen's custom to question them in the evening about it, to see if they remembered his explanations. His talk about hive-making was somewhat like this:

"When we want new hives, Archie, what is the first thing to do?"

"Find out how much lumber to buy," was the prompt reply.

"And what next?"

"Pick out good lumber that won't check and split easily," said one of the twins.

"And then take the lumber to the mill and have it sawed true to the sixteenth of an inch," said the other twin.

"Why take it to the mill?" inquired Glen. "Would it not be cheaper to saw it one's self?"

"You couldn't saw it so true by hand, and it would take so long to do it that it wouldn't pay," was the ready reply.

"Very true. It sometimes pays better to hire a piece of work done than to do it yourself. When you are putting the hive together, tell me what you must be careful to do?"

"Keep the work square." "Put the boards heart side in—no, out I mean." "Make a square box to build the hive around," said various voices.

"Yes all those things are necessary. What must we remember about the nailing?"

"To put the nails so the wide part runs the same way as the grain of the wood," said Byron, who had split three boards by forgetting that, during the afternoon.

"And not nail too close to the edge for fear of splitting," said Hester Blumberg. "And use a nail set to sink in the head so you can putty over it," said her sister Flora.

"Why do we putty over it?"

"To keep the water and sun and air from rusting the nail," said Mary Trotter, who had tried to remember that point so that she could have something to tell.

"Use the right size of nails too," said Caroline Hopper. "Too big nails will split, and too small ones won't hold so well."

"Drive each of the corner nails slanting towards the center of the board," added Joel Crane.

"And hit the nails instead of your fingers," said Joseph, gazing mournfully at his left forefinger, which had a rag tied around it.

"Hit him light till he gets part way in," said one of the Spanish boys.

"They have forgotten to put white lead or lime and milk where the boards come together so it won't spring apart," said Archie King.

"Right, my little man, Archie is a veteran bee-man," said Glen. Then he inquired about the thickness of the boards used, the rabbeting covered with tin whereon the frames rested, why zinc nails were used there and wire nails for the frames, how to keep the frames square in nailing the size of each piece, why a quarter-inch space was left above and below and on each side of every frame, why metal corners were good, how to calculate the number of frames to the hive, why all the frames of an apiary should be exactly the same size, why the lumber was cut a little wide, referring every time to a model hive which stood near him, so that it was a genuine object-lesson as well as a lesson in industrial training.

Then in numerous other lessons he taught them the marvels of queens, workers, and drones, the anatomy of the sting, the honey-sac, and other parts of the bee; had them use and become familiar with the principles and construction of tanks, honey-extractors, sun-extractors, evaporators, etc., down to the minutæ of water-heaters, honey-knives, and smokers. Some of his own hives he devoted to comb honey, but the pupils' were run for extracted honey only.

Artificial swarming as well as natural increase was discussed, and they were shown the great advisability of suppressing swarming as much as possible in order to produce the most honey.

"It takes so many workers to keep house," said Glen, "and the surplus bees bring in the surplus honey."

They bought a small foundation machine, and made comb foundation, but the boys did not enjoy that very well, as they would occasionally forget to starch the rollers, and then it was a tedious job to pick the wax from the dies of the rollers.

They enjoyed better the rambles in the field, and observations of the various honey plants, their time of bloom, and the quality and quantity of honey they produced.

The best weather for honey, the vigor of the sages and other honey plants, the distance bees would travel for supplies, the connection between the honey flow of the plants and the propagation of the seed, the various colors of the pollen on different bees' legs, the fact that a bee visiting one species of plant for honey or pollen rarely alights on another kind of flower—these and hundreds of other observations were made over and over again, for Glen taught them that one observation alone proved very little, and that it was only by patiently repeating observations under varied conditions that the real reason could be discovered why a thing is so or not.

They even patiently tried over experiments that others had pronounced failures, and in a few cases they were awarded a partial success. When the boys got interested in Italianizing their bees, there was quite a strife to see whose queens would give the most distinct yellow bands to the workers; and one boy whose bees showed *four* yellow bands instead of the regular three was offered two colonies of two banded bees for his queen; but he would not trade, for young people, like old, value most, what their neighbors want. Glen showed them how to mark cells in an observatory hive (made with glass sides and holding only one large comb) so that they might time the growth from the egg through the larva state to that of the perfect bee.

By the time the honey season was over most of the pupils had acquired more knowledge of the life and habits of the honey bee than half of the professional bee-keepers of Pacific County had, for Glen had taken a great fancy to the bees, and had sent for all the books and publications on apiculture he could obtain; and as he had a great enthusiasm for his work, and was an eager learner himself, it was natural that his pupils should partake somewhat of his enthusiasm and delight in the study, for children, like monkeys, are born imitators.

May Harvey and Nora Saxon refused at first to have anything to do with the "horrid creatures," but there is contagion in enthusiasm, and one soon became actively interested in entomology, and the other in the botanical part of bee-culture, and in time became the recognized authorities in those branches. Nora Saxon soon had a collection of moths and other insect enemies of the bees, while May made a systematic collection and

classification of the honey-producing plants of Pacific County. But it was in the ornamentation of their hives that the "young Modocs," as the neighbors called them, excelled.

While Glen was careful to explain why the hive should be white in the main, yet he gave them permission to ornament their hives as they saw fit, around the tops and the entrances. Every pupil was required to paint his initials on hive, cover, and bottom board, and then he could add whatever ornaments he chose. Every hive was also numbered, and the pupils had a record of each hive which May kept for them until they were able to write for themselves.

"And what good did all this do?" some objector may ask. "Would not the children have learned more that was useful, if they had spent this time on reading, arithmetic, and writing?"

In the first place, those studies were not neglected. They could see a practical use for them, on the contrary, in the apiary.

The children acquired some little knowledge of botany and zoölogy, for one cannot study one animal or plant thoroughly without learning something about all.

They acquired some skill in handling tools and a taste for neatness and precision in work. Examples on the slate were squared up, and writing was "beveled" better for the hive work.

The children acquired valuable habits of observation and experiment.

They gained a knowledge of the bee-business which in after life may help their income, keep them out of mischief, and add to their independence. The rambles and occupation were good for their bodies and their minds. They acquired something of the naturalist's tenderness towards the inferior animals. They learned to like work and see the usefulness of work, for Glen allowed them the profits of their own hives, and they took great pleasure in their earnings, the first money some of them ever had that had not been given them—(an evil practice). It gave them an interest in Cañada Grande, and made it more of a real home to them.

Numerous other advantages might be noted, but these are enough to show the benefits such an industrial course would be to young or old.

I believe an apiary ought to be attached to every normal school and college in the country, and I am not sure that one adjoining every district school would not be an excellent idea.

C. M. DRAKE.

Saticoy.

When the object is merely to address the understanding and communicate thought, accentuation is the main thing. Less depends in this case upon the order of the vocal tones, or upon the melody of speech. But when emotion is to be expressed, it is, together with the accent and the time, the melodious order of the vocal tones, particularly the manner in which they rise and fall, which is chiefly to be regarded.—*Seiler*.

ARE WE OVER-EDUCATING OUR CHILDREN? *

HERE in the United States the adoption of "a government of the people, by the people, and for the people," rendered general education immediately necessary. We find that from the first formation of the colonies, much attention was given to this subject. Massachusetts provided for common education as early as 1636, and the succeeding colonies followed her example; still, about forty years ago, intelligent men, in looking over our country, observed that our means of education were not sufficient; that our common schools were small in number, ungraded, and giving instruction only in the most elementary branches; that only here and there in the largest villages could be found an academy, in which pupils might prepare themselves for the superior instruction of the college; that too often the expense attending the attainment of a good education confined it to the children of the wealthy. This was the condition of the means of education, while the nation itself was growing with unexampled rapidity. Our settlements had expanded from the Atlantic to the Mississippi, and from the Great Lakes on the north to the Gulf of Mexico on the south. The stream of immigration from the Old World, which for years had been pouring into the valleys of the West, was increasing. Agriculture, manufacture, and commerce were growing with wonderful speed. The government itself was also growing in complication. A necessity existed for the elevation to a higher plane of our whole population; and this could only be accomplished by a system of common schools sufficiently effective to educate the children of our native population and those of our foreign immigration; sufficiently liberal to induce the rich and the poor to educate their children in common; sufficiently expansive, not only to keep up with but to keep in advance of the great material growth of the nation. Such men as Horace Mann, Henry Barnard, D. P. Page, and a host of other great educators addressed themselves to this work, and the result is, after forty years our present system of public education, which takes children at six years of age and carries them up through the University in any State. It is a system which, like the fairies' tent that could be packed in a small case or expanded over two armies, adapts itself to the thinly settled district, the village, and the city; which, in fact, is capable, with proper development, of embracing and educating all the children of all grades and classes of this great republic.

Our system of public education is sometimes, with a sneer, called a machine, and the same voice adds that it does not believe in machine education. If the fact that we have primary schools, grammar schools, high schools, and a University, and that the children and scholars are divided into ascending grades and classes, and that the schoolhouses are so constructed that each grade has its room and desks, and that each grade has its department of study, books, and teacher, constitutes a machine, why then it is a machine. It was different when I was a boy, forty years ago. Then the schoolhouse consisted of one room, in which all the children of the neighborhood collected,

* A portion of an address delivered before the Teachers' Institute at Los Angeles, April 12th, 1883.

great and small ; the books were the same for old and young ; the older pupils studying a little farther over, and the teacher was the same—at least, for three months. Now I assure you, young teachers, and you fathers and mothers, that it is my profound and firm belief, arising from experience, that those schools to forty years ago are not equal to our *machine* schools, and that the teachers of that period are not equal to the teachers who now run the *machine*. In my father's barn, in those days, still hung the sickle, and I have heard men of mighty prowess boast that they have with that instrument cut a whole acre of wheat in one day. The sickle had just gone out of use and the cradle had taken its place ; with that instrument a man could cut two acres in a day. Still I believe solemnly that the fine reaper, team of horses, and driver, which now cuts twenty-five acres in a day, is a better *machine* than the sickle.

If system in work is of any value, if machinery is of any value, then that sneering critic is a *dunce*. And this brings me to the question, What is education ?

Ruskin says : " An educated man ought to know three things"—not the three R's, you will observe—" first, where he is—that is to say, what sort of a world he has got into ; how large it is ; what kind of creatures live in it, and how ; what it is made of, and what may be made of it. Secondly, where he is going—that is to say, what chances or reports there are of any other world besides this ; what seems to be the nature of that other world. Thirdly, what he had best do under the circumstances—that is to say, what kind of faculties he possesses ; what are the present state and wants of mankind ; what is his place in society ; and what are the readiest means in his power of attaining happiness and diffusing it. The man who knows these things, and who has his will so subdued in the learning of them that he is ready to do what he knows he ought, is an *educated* man ; and the man who knows them not is uneducated though he could talk all the tongues of *Babel*."

Education is twofold. First, it consists in the acquirement of information which is generally called learning ; such as language, spoken and written ; facts in the ordinary events around us ; facts of trade, of history, of geography, of arithmetic. Second, in the training of the physical powers and the intellectual faculties ; strengthening and enlarging them till they have the power of using these facts to aid in the successful accomplishment of the ordinary work of life. This training is sometimes called discipline. An educated person may be compared to a mason standing beside a pile of bricks. The bricks are the facts, the mason is the physical force picking up the facts one by one, and the intellectual power is guiding him as he skillfully welds them into a solid wall. The building which he constructs is the work of life.

Education is a vast subject—it comprehends all the knowledge of the world ; all the powers of man ; it engages the services of the library, the school, the pulpit, and the press ; it commences at the cradle and ends only with the grave. It is only with that small division of education which we have termed public education that I am now to deal. Public Education is that education which the State gives its children through the medium of the common-school system, including, in this State, the University.

Are we, the State, over-educating our children?

Mr. Frank M. Pixley, an old resident of the State, a good lawyer, a prominent citizen, an able writer, and the distinguished editor of the "Argonaut," says we are. Mr. Pixley ought to know. Mr. Pixley is a good scholar; he has received or acquired a good education; his experience and observation should teach him its value. I shall not be so uncharitable as to say that, having received a fine education himself, he now thinks there is no more use in this world, or perhaps in the next, of that article. I do not think he wishes to monopolize the means by which he has risen in life. The Hon. Zack Montgomery thinks the same, and he has been engaged during the past few years publishing broadcast his opinion in hopes of creating a similar public sentiment. Mr. Montgomery goes farther; he thinks that the machine should be reduced back to the sickle, and it has been shrewdly conjectured that he would turn the sickle into a parochial school. I have heard during the past two years a number of able men express such views. Within the past year, the Bureau of Education at Washington has distributed two volumes which disseminate similar views. These people are honest and able. They are either wholly mistaken or misled by some weak point in our system of education which has caught their attention and caused them to condemn the whole, instead of an error, which should and can be amended. Let us consider the subject farther.

The history which I have detailed affords, to my mind, sufficient evidence to convince me that we are not over-educating our children, that we are not giving them sufficient education, that perhaps it is impossible to over-educate. Let us, however, bring the subject a little nearer home than history presents it, by spending a few minutes in considering it in its relations to society around us. Let us select examples of the *value of education*.

Of what *good* is education to the mechanic?

It gives him the power to keep his accounts clearly and accurately—this is writing and arithmetic; to learn what machines are being made in other parts of the world, how they are made, and what improvements, the best material and where to purchase it cheapest—this is reading; to estimate the strength of his wood or iron, the force of his steam, the pressure of a hydraulic column, the force of a blow, the friction—this is physics, or natural philosophy, as his text-book is sometimes called. The fermentation of wine, the making of glue, starch, acids, and powder are direct results of his chemistry. It teaches him to make a picture of the machine which his brain conceives and his hand is anxious to model—this is drawing. Where shall we stop enumerating? No man needs book knowledge more than the mechanic. And besides all this, education affords him the means of pleasant recreation after the hours of labor and fills his mind with pleasant thoughts, and, what is also of great importance, makes the mechanic socially the equal of the merchant, the doctor, or the lawyer.

What good is education to the farmer?

Without enumerating the evident application to keeping his accounts and making his market calculations, I shall notice only a few points that are

generally overlooked. No man needs the aid of book and newspaper knowledge more than the farmer. He belongs to a guild that extends throughout the civilized earth. From north to south, from east to west, it is his vocation to make the earth blossom. Where the population is thickest, where the wants of the human family are greatest, where civilization has reached its highest limits, there the farmer is called upon for supplies which demand his utmost energies guided by the highest intelligence. This simple assertion is so self-evident and comprehensive that no further argument would appear necessary. Let us, however, enumerate a few cases. The great improvement in horned cattle, in horses, and in wool-bearing animals, and the advantages of this culture, the pests which are always threatening the grain fields, the orchards, and vineyards, blighting often the laborer's reward, and the introduction of extensive labor-saving machines require wide reading and study. The preparation of manures demands a sufficient knowledge of chemistry to know the elements to be preserved and the necessary chemicals to accomplish it. I have seen a farmer mix lime in his compost heap and throw away his refuse bluestone. The peculiar climate of this State has led to the introduction of branches of agriculture of which our people were wholly ignorant, such as the cultivation of the citrus fruits, the olive, and the grape. The making of wine, oil, and raisins, and the cultivation and preparation of fruits on a large scale for exportation, is a new industry to us, which promises through an intelligent expansion to cover our hillsides and fill our valleys with orchards and vineyards, and build up here in our Pacific State one of the most thriving agricultural communities in the world. The farmer should be educated, not only because intelligence brings more results out of his labor, but in a hundred ways it also affords him pleasant thoughts for his enjoyment, as well as for a comparison of his pursuits with other business trades and professions, showing its advantages and making him the equal of all other men in the community of which he forms so large a part. This gives him a love of his pursuit, and the happiness which grows out of contentment with our lot in life. It also fits him to occupy that position in the political and social organization surrounding him, and wield in it the influence which collective wealth and numbers always give. I do not hesitate in saying that no single one of what are termed the learned professions requires as wide and generous culture as the pursuit of *agriculture*.

On the miner education would be wasted, if he were satisfied to wash out his earth through the day and retire to his cabin as evening approached, sleep away the night, and commence the next day the same; or to gather his quartz, crush it, collect his gold, and fill his time with this routine. In this labor, muscle counts more than mind. The Mexican is satisfied with such a routine. He labors, sleeps, and rests. The Anglo-Saxon demands more; he goes to his cabin at evening, and *plans* and *thinks*. He builds sluices, washes the soil, not by the panful, but by the hundreds of tons. He invents the hydraulic nozzle, combines capital, builds reservoirs and long lines of ditches, flumes, and pipes, and tears down mountains. The pick and the arastra are too slow for him; he attacks the solid quartz ledges with the Ingersoll drill,

he blasts with giant powder, hoists by steam or iron tracks, and crushes the ore under a hundred stamps of steel in a mill exhibiting wonderful power, precision, and rapidity, which his active and ingenious mind has invented. Thus he has combined capital, labor, and mechanics to accomplish his work. And still he goes on thinking; thinking is his pleasure, his recreation after labor. He looks upon the mountains around him and admires them, climbs to their tops, gazes at the plains spread out under the hazy atmosphere far beyond their feet. He enjoys these pictures. All that is grand or beautiful in natural scenery finds ready appreciation in his mind, and he naturally turns to the geological history of the earth written in symbols around him to satisfy his ever-inquiring mind. He asks, Whence came the gold and silver? Under what conditions was quartz formed? Again he looks upon the fields of polished rocks found in the higher mountains, cut by deep furrows and gorges, and is told by books that all this is the work of ice, and he asks, Whence came the ice? What were the conditions under which an arctic climate was produced to cover these mountains with vast fields of frozen snow and ice, with immense grinding glaciers, "the mills of the gods, which, though slow, ground exceeding fine," both the quartz for the miner and the soil for the farmer? When in the misty ages of the past did this happen? He does not question the extent of time; these hoary mountains have taught him that nature works on a grand scale. He sees that coal is formed from vegetation, counts the time necessary to grow the vegetation, to cover it with earth, to change it to a mineral. He thinks of the vast beds of limestone, and the coral islands created by almost microscopic animals, and he finds time enough for all the wonderful natural phenomena which he has witnessed in his mining operations. To the educated miner, such thoughts, such pictures, naturally arise from his pursuit, and afford him recreation for many an idle hour. No man needs education more than the miner; it makes him a calculating machine; it gives him enjoyment in his thoughts; it makes him the equal of the inhabitant of the valley.

The laborer, "the hewer of wood and drawer of water," he who has hold only of the bottom round of life's ladder—what can education do for him? Arithmetic, geography, or geometry will not aid him in shoveling dirt, or add strength to the muscle with which he wields his pick. He does not need them to calculate his meager daily pay; why should property be taxed to educate the laborer? In our country any one may rise above the position of common laborer—many do—and education not only aids him in ascending, but fits him to fill the different stations as he ascends. Those who object to making education so general perhaps mean that the boy who intends to be a laborer all his life does not need it. Where will you find such a boy? But suppose you have found him, and have educated him, let us see if his education is wasted. He becomes a man and surrounds himself with a family of children, who may not be satisfied to remain common laborers like the father. They have a natural demand on him for advantages which will permit them to take higher places. Every child in the land has a right to education, and the parent or the society that refuses the right commits a robbery on the child of its natural

heritage. How much shall he receive? All which under the circumstances of his environment he can possibly take. The laborer then, who has been educated, is able to educate his children. He also becomes a more intelligent citizen; which of itself might be shown to be a sufficient reason for his education. I leave this prolific thought for your elaboration. Finally, he has the means of pleasant thoughts, of enjoyment within himself; and no man needs this kind of enjoyment and the contentment and self-reconciliation which it brings more than the daily laborer. The man of means has his cultivated grounds to view, drives his fine horses, visits places of amusement, goes abroad when these fail; but the laborer either becomes the habitual customer of the saloon, or finds his pleasure in his own thoughts, in books, or in that haven of the greatest enjoyment which any man can make on this earth—a happy home.

Humble though the life of the common laborer may be, and continuous his toil, still cultivation and refinement surround him with influences which render his position in life, if not in the world, more nearly equal to his favored neighbor of wealth. Nature has presented the means; cultivate his intellect, and open his eyes, and he will see the roses bloom alongside the road, in which he trudges better than he who rides in the gilded coach.

For him the perfume of the jasmine will be just as sweet, and God's sunlight just as free and bright. The greatest happiness and contentment must always come from *within*. And he is poor indeed who looks inward and finds in his storeroom of knowledge no pictures which give him pleasurable emotions, or no food for quiet reflection; but he who has supplied himself with material finds his own thoughts his best company and greatest pleasure, and is best contented with the results of life. Wealth has no monopoly of such possessions, more than it has of the blue sky. The working-man and the millionaire may draw alike from this perennial fountain, and both may learn that the pomp of position and gilding of riches afford only adventitious aids to happiness. To the cultivated heart, whether it beats in the bosom of the millionaire, the scholar, or the laborer, the beautiful lines of Voltaire are equally applicable:

“Ah! happy he who to life's latest hour,
Of the arts enamored, plucks their fruit and flower.
He braves injustice, snail-paced time beguiles,
Forgives his foes, at human folly smiles.
Life's glimmering lamp feeds with poetic fire,
And with his dying fingers sweeps the lyre.”

Equally consolatory to the toiler are the poetic lines of Southey:

“Scoff me who will; but let me, gracious heaven,
Preserve this boyish heart till life's last day,
For so, that inward light, by nature given,
Shall still direct and cheer me on my way;
And brightening, as the shades of age descend,
Shine forth with heavenly radiance at the end.”

Now we have concluded that the mechanic, the farmer, the miner, and the laborer should be educated. What follows? Then the state must have

a complete system of schools, for these four classes make up four-fifths of our population. We must have primary schools, grammar schools, high schools, normal schools, and a university. In fact, we must have the machine, and make it as perfect as possible.

The great political questions of the past, such as the United States bank, internal improvements by the government, tariff, and slavery, have become comparatively well settled, but in the effort to develop our manufacturing interests, and to settle up rapidly our new Territories, we have fostered two great interests—the manufacturing and the railroad interests—beyond all others. These two interests have become very prosperous and powerful. In building up railroads, we have also incidentally aided in increasing another special interest; that is, large holdings of land by single individuals. Within the past few years, the corporations controlling manufacturing and railroading have become wealthy, powerful, and tyrannical. These are types of all corporations and large land-holdings. Wealth is apt to breed arrogance, and power is likely to induce oppression. Vast wealth has been and is being accumulated through these means in a few hands, to the injury of the masses. That community is best arranged where none are very poor and few are rich. The pursuit of wealth becomes a passion, and often it happens that private morals and public service suffer. Our law of entail is such that great land-holdings are not likely to become permanent. But corporations perpetuate themselves. Immense factories, great railroad companies, employing thousands of operatives, continue to grow larger and stronger, till they control immense interests, reaching over the whole country. They monopolize those interests, and the thousands of working people dependent on these companies grow more dependent, until at last it becomes a struggle for existence by the mass against a struggle for profit by the few. These great domestic questions are beginning to open on us. They have been felt, from other causes, in France and England; and we see to-day in Ireland the effects growing out of the oppression of the masses by a wealthy, privileged class. We have so far almost escaped these difficulties. The abundance of new soil in our Western Territories has afforded an outlet to the population of our Eastern cities, and an abundant support for them. The doctrines of communism have so far found no want and oppression in which to take root. But the day is rapidly coming, with our natural increase, and the great streams of immigration pouring in upon us from every quarter of the globe, when all our public lands will be exhausted; when every fertile valley and plain will be as thickly populated as Europe now is. The populations will then begin to crowd; the struggle for existence then begins, and these domestic internal questions, which have already attracted attention, will become the great problems with which this great republic will have to deal.

The nations in the past which have risen and decayed were guided in their prosperity by an educated class. Ours is a government by the whole people, and its prosperity and stability depends upon their intelligence. If by a great system of national education the intelligence of the whole people is advanced as rapidly as the population and wealth, we shall be able to grapple

with these great questions as they rise, and settle them for the prosperity and good of our country.

I conclude, then, that education is a public benefit, to be paid for out of public funds; that taxes, that gold turned into intelligence, returns to us a hundred-fold; that our common schools aid each of us in making a living, that they increase the brain-power of the race, and thus lead to the great activity which we see in the invention of machinery, in the improvements in agriculture, and in the discovery almost daily of some new fact or object which proves valuable to mankind.

Are we then over-educating our children?

There *is* a weak point in the common education of our children. I do not say that the weakness is in the common school system, although it may be found there to some extent. I charge it against parents and society in general. And it is no doubt this weak point which has arrayed many able men against a high system of public education. Let me close my paper with a few minutes' consideration of this weak point in our common education, and its remedy.

Much has been said lately, especially in San Francisco and other large cities, in regard to the large number of boys who are growing up into idle, worthless men, too proud to work as common laborers, and worthless in those pursuits where labor is in demand. It cannot be denied that there are many hoodlums in the streets as well as many of a better class of young men who are in vain looking for light and genteel employment. This is a great evil, and it is charged against our system of public education. It is said that we are over-educating the masses, that we are making them proud and unfit for labor.

If this be true, let us hasten to destroy our system of common schools; for a blight has attacked the land, however wealthy and prosperous it may appear, where such sentiments prevail, more dangerous than the calamities of disease, famine, or war; these affect the surface only and soon pass away, but those are the commencement of rottenness at the core which increases till the fair fruit is destroyed.

"Ill fares the land, to hastening ills a prey,
Where wealth accumulates and men decay.
Princes and lords may flourish or may fade,
A breath can make them, as a breath has made;
But a bold peasantry, their country's pride,
When once destroyed, can never be supplied."

Labor has created this great empire of ours: inculcate any sentiment that shall lessen labor, and immediately our growth will lessen in proportion. Degrade labor, and thus destroy the pride of the laborer in his employment, and you destroy his character, on whose activity the prosperity of the country rests. If public education is tending to such results, let us hasten to close our schoolhouse doors.

But intelligence does not tend to degrade labor: ignorance does, as we have seen along our railroads where European employees have been imported

to do the work, or in our Southern States where slave labor has existed, and in our own State where the Chinaman has usurped the field of common labor. The error is in attributing the evil to the wrong source—to a source, indeed, which should, and will in time, merit and receive the credit of the remedy. If the remedy is not now sufficiently active to wholly overcome the evil, it may be attributed to the faults in the system and not to the system itself. In the pursuit of a cause of certain results, particularly where they are many and complex, we should be quite careful to select the right one. I can illustrate this by telling Professor Sill's story. Some young men were enjoying themselves around the table till late in the evening, when the question arose as to the state of the weather outside. One of them went to the door to take observations, but by mistake opened the wrong door and looked into the pantry, and came back and reported, "Dark as thunder, and smells like old cheese." The trouble is, that Mr. Pixley and others have opened the wrong door. They have attributed the large number of young men who are growing up in the large towns and cities, and who are collecting in them from the country in pursuit of light, fancy employments, such as clerks, book-keepers, telegraph operators, etc., to the effects of common school education. They see that these boys do not go into the foundries or machine-shops, or blacksmith shops or carpenter shops, or the various factories, and learn trades. They see that they do not go on the farm, or in the orchard or vineyard and learn these pursuits. They know that there is a demand for skilled workmen in all these lines of business. They see that this evil exists, and without careful examination at once attribute the cause to the common schools, and declare that we are over-educating the masses. They have looked into the pantry instead of out-doors, where the real condition of the weather might be seen. What have the common schools done for these boys? Just given them enough education to fit them to become mechanics, or farmers, or fruit raisers, or miners, or laborers? only the rudiments of real education, we may say only the means of obtaining an education, for at the point where most pupils leave school education has but fairly gone beyond the first round of the ladder. And these people are being over-educated, the "Argonaut" says. What, in heaven's name, does Mr. Pixley consider an education? Go into the public schools and see how few leave them with anything beyond the rudiments—beyond the signs of ideas; and yet Mr. Pixley would have this standard lowered: "We are over-educating the laboring classes."

No! education never made a hoodlum, or an idler, or a man too proud to work. No greater libel was ever perpetrated than to attribute these results to true education. On the contrary, learning teaches men to be virtuous; teaches that nowhere on the face of the earth is anything accomplished without labor; the lesson that "by the sweat of the brow shall man earn his bread" is a principle impressed upon matter, as well as a command old as the earth itself. It encourages and ennobles labor; and I have yet to see the teacher who does not enforce that idea.

The cause of the large and increasing number of young men who seem to have no place suited for them in society, who are consequently drones, and

from whom the ranks of the hoodlum and criminal elements are being constantly recruited, must be sought for outside of the common schools. Indeed, I believe the remedy must to a large extent be found in them. A large part of our population consists of immigrants. These immigrants may be divided into farmers, mechanics, and laborers; the latter class largely predominating. The immigrant farmer goes on our public lands; his children become farmers and generally do well. The mechanic stops in the large towns, finds ready employment at remunerative prices, educates his family in our public schools, rarely, however, giving more than one of his boys the trade which he pursues himself, and neglecting to have the balance of his family learn any trade; they grow up in a prosperous community where there are many people of considerable means, who dress their sons and daughters well and require from them little manual work. The neglected children of these mechanics wish to dress as well and labor as little as the young people around them, and yet they have no means of earning the necessary money. They must either descend to the position of common laborer or seek some fancy unskilled employment. The immigrant laborer belonged to the lowest class in his own country, and when he comes here he is poorly calculated to point out to his sons and daughters the necessity for becoming skilled workmen. He lets them attend the common schools for a time, and then they go out on the streets without any trade. Our American farmers often give their children a good scholastic education, make one of them a lawyer or a doctor, but never have any of them learn trades, nor do they divide the farm up and build a home for each. A portion of these children go out in the world without any regular pursuit to make a living. A large proportion of our people commence life poor, they accumulate property, surround themselves with the comforts and luxuries of life, educate their children; but they do not teach their children the business in which they succeeded, nor do they teach them trades. On the contrary, you will often hear such people say: I have no education; I have worked all my life, and my children shall be gentlemen and ladies. What a kind mistake, and often how fatal to their happiness! The wealth takes wings, and the children find themselves in poverty looking for some genteel employment. Finally, there is a wide-prevailing notion in the community that all that is necessary is to educate children in the schools, many families believing that if they can give their children a school education they have done their whole duty by them, and that they can then set them afloat in the world to make their own way. And this opinion is fostered by many brilliant examples of success. This opinion might be justified to some extent if education were what it ought to be and what it is the teacher's duty to make it—a preparation for life and the practical duties of life. I believe the graduates of our high schools and universities find more difficulty at first in supporting themselves, and are often less fitted for the practical duties by which they are to make their bread and butter and homes, than the newsboy in the street, or the young man who at an early age, at the sacrifice of school training, has turned his attention to a definite pursuit and learned a trade. I am aware that this is a serious charge; but is it not true in respect to young men, and to a less remarkable

extent to young ladies? Look at that young man who has just graduated from the high school. What is he good for? What is he going to do? He needs bread and butter; he needs clothes—good clothes. He is not fit to be a common hired laborer in the streets and fields. He has no land to till if he knew how to till it. Clerkships and those genteel employments requiring little special training are already crowded. What shall he do? He should immediately learn some trade, and his education is not finished till he does so. These are the causes of the large number of idle young men in the community who have no definite employment. The cause is not what the school has taught them; it is rather what the school has not taught, and the failure of the parents to complete their education after leaving school by teaching them some definite pursuit by which they may acquire a livelihood.

Now for the remedy. In our higher schools, let us drop Latin and Greek, or at least take them out of our general course of studies and turn them over to the department of specialties in company with ancient and oriental literature, hieroglyphics, catacombs, and other studies of either limited application or of reference to the dead past, and turn our chief attention to those which refer to the present living world. Instead of so much derivation, algebra, geometry, Latin and Greek, let us have chemistry, geology, mineralogy, agriculture in its various branches of horticulture and viticulture—those living, practical studies which distinguish present learning from the past. Let all languages except our own, ancient or modern, be relegated to the university, or be paid for by those who wish to pursue them. Let us have a national education adapted to this new civilization which is arising in the earth and this new government which we are propagating on this continent.

In the common schools, let us supplement the higher schools by dwelling on these subjects, teaching the pupils the objects of education and the necessity of their learning and pursuing some given pursuit as soon as they leave school. Let a class be formed in which may be described the different trades and pursuits, where and how these may be learned; what apprenticeship is, and how a boy or girl may render himself or herself an acceptable apprentice. In this way the common schools may become a great power in turning the attention of the rising generation to the necessity of acquiring some special, fixed occupation. Teachers should inform themselves on these matters and discuss and propagate such ideas. Our legislators should make the interference of trades-unions or any other societies with apprenticeship a felony punishable by severe penalties. If these measures are not sufficient, then the State should encourage a system of trade schools, where agriculture in all its departments, mining, and the mechanical trades may be taught. The class of drones of which we have spoken is large and constantly increasing. A remedy must be found. The laborer, the mechanic, the farmer, and the merchant, in fact, the head of every family, must be taught that he has not completed his duty by his children till he has first educated them in the school and then given them some special pursuit by which they may support themselves and become valuable units in society. No people, no state, can become prosperous without labor, intelligent skillful labor, intelligently applied by its whole population.

C. J. FLATT.

WASTE TIME IN THE SCHOOLROOM.

WASTED time? There is no such thing. It is a misnomer. Time is steady, faithful, unflinching. It never fails us. Its tension is the same under all pressure; it never sags, never twists, never snarls. It is the same unbroken, continuous thread of gold the Almighty first unreeled when the days and nights first fell into line!

What, then, is wasted, if not time? Labor is wasted, patience wasted, strength, nerve-force, above all, the heritage of these public school children is wasted; and the true question to debate is, How are these forces wasted in the class-room? What is the power lost? Where is the lesion caused, and how shall it be stopped?

In the first place, let us understand what is to be done in the public school-room. Educate the children. This is the work planned for, paid for. Now, whatever becomes a help to gain that object is a reserved force, and should never be "wasted." But a greater question meets us: Of what shall this education consist? Is it merely the knowledge gained from text-books? To learn the mysteries of numbers, or the trickery of speech? Merely to answer with set words the facts of certain questions mapped out by one person's mind, and to be accounted educated if this is all learned perfectly? If this be all there is in public instruction, then it is a waste of power to establish rules for promptness and system of work, and the "calling of a roll" or keeping the statistics of a class will take up time that may be spent on the text-book work. On the other hand, if the education of these masses calls for other training than mere book-learning, then nothing should be considered "wasted" if it helps gain the good work. In my estimation, the book-work, although essential, is the smallest part. There are habits of thought and study to be formed aright, and others broken up. The ten thousand freaks born in these minds must be softened and brought within the scope of self-control and self-reliance. Erratic, hap-hazard, slipshod traits must be eradicated. License must be bridled, speech purified, and dishonesty scorched. Stroke by stroke must this be wrought, and the whole character rounded down to docility and obedience. Business system, prompt, punctual attention to the proper divisions of time, no matter how trivial—these all go to the forming of a stable, reliable character; and it is as absurd to say these things are a "waste of time" as to say it is useless to stay a ship with its rigging and pulleys.

The daily marking of a lesson may take time; but if that exercise is made a matter of judgment, conscience, and honor, it may do the pupil more lasting good than the mere lesson itself, inasmuch as it trains him to set a value on the correctness of his thought and words. That he will think is a natural law as sure as that water will run down hill. An old pagan once wrote, "The mind was made to learn, and learn it will; education only guides that thought." As the river can be bound by dams to move the ponderous mill-wheel, so the child's will and thought can be gathered into strength or frittered into waste; and it is this fearful waste of power that calls for reform. The day passes in

what seems to be work; but at the close when results are summed up, not one stroke of skilled, available work is done. Only wasted power and opportunity! Time is used, crammed full of the vamping talk, railing, scolding, and petty exactions of a heartless martinetism that too often passes for discipline. And here let me remind you that there is relatively a great difference between discipline and mere order. The former means a steady, pliant yielding to the forces at work, while the latter simply means the regular arrangement of factors under a rule. It is not the mechanical work of keeping records and statistics that wastes the so-called time, but the senseless exactions of many a check-list. Pupils should be allowed a natural amount of ease while at work. They should not be fretted or chafed with a too constant fault-finding, which only gives proof of a petty temper and an idle love of authority on the part of a teacher. If the true spirit of work prevails in a class-room, the check-list invariably shows a reduction.

Recording facts, estimates, and values of any kind of work is an education of itself. No trade, business, or enterprise is worth much that is carried on in a "hit-or-miss" style: why should the student be absolved from that care that builds up the way-marks of his mistakes and blunders? Why should his time be trifled with, or his rank in the class be denied him, or his right of recognition for superiority of work be lost through an indolent teacher who cannot be bothered with the equities of his class? In the larger school of life, do we not demand the blessed right to be accorded a higher place for our struggles? So be it with these children; and, under the law, the most stupid dunce in the class is entitled to the same amount of training as the most brilliant, and it does not answer the law or the spirit of our institutions to segregate the bright pupils and give them any undue advantage. The lecture system is a fine one for advanced academies and colleges, where maturity grasps easily and willingly at thought; but in our public schools it is a system of waste because of the laggards and the unfortunates. The work in the public school involves no strife for the development of genius. We are not to educate heroes. The day has gone by for that. It is the heroism of common life we must develop. We want a strong, self-reliant commonality; and with the masses educated to a regular systematic thought, snapping with the electricity of decision and good judgment, we shall be safe with or without leaders. The work, then, in our class-rooms should be such that will produce this uniformity of integrity and stableness. Adaptation should be the secret of the work, and not so much idle talk on methods. We do too much talking, and call it "teaching," call it "education," when we should be molding the minds before us into honest, fearless outspoken characters, yet docile, polite, and amenable to a reasonable discipline.

Another great "waste" is occasioned by the noisy, over-demonstrative teacher, who uses up a vast amount of oxygen that ought to go into the lungs of his class, by his loud-splashing, "slop-over" style of talking and work. This overplus of physical energy often passes for "brains," but in reality the mind has little to do with it. We forget that the mind works best when the brain is supplied with its proper allowance of vitalized blood, and that all

brains cannot and do not have a like amount of vitality. If this one fact were understood and remembered better, many a poor, tired, or incompetent mind would be spared the usual "scolding" or fretful innuendo of "stupidity." There are few things that will vitiate the air of a room faster than muscular activity or loud talking, especially if the person is in any way subject to disease. The sea-captain and midnight fireman may learn by a dear experience of danger to think rapidly in a stormy noise; but children cannot, except with the risk of congestion and failure. There is no surer mark of a superior teacher than a noble self-control. It is the sheet-anchor of the class-room.

The magnetic affinities of children form one of the most interesting studies for the teacher, and it is no small clew to the success of work. To ignore them is at once an evidence of weakness and waste; for the psychological and physiological laws of our being should be the foundation of a teacher's knowledge. Yet how few comprehend them! and this is one great reason why the teacher becomes pedantic and opinionated. Another common error is the habit of the adult mind to gauge by itself the ability of a child in its capacity for work. Many a child is bright enough to understand all you say, to follow your work, and then do it to your present satisfaction; but if that topic is not referred to for thirty-six hours it will have passed entirely out of mind and remembrance, not because the child did not grasp it or understand it, but it was not mature enough to keep what was taught him. Reason was true to its power, but memory fickle. Teachers thus waste the interest, faith, and zeal of pupils often by continuing an exercise too long. One hour's close application to any one thought will weary the strongest adult mind, yet we often find classes for two hours and more bent over arithmetic or grammar. It is simply the spirit of a slave-driver that will force such attention. Nature never intended the child should do the work of a full-grown brain. Yet we are daily scourging them for not doing it. Each study should have its promptly appointed time, none should be neglected, not because one study has intrinsically more value than another, but because the change becomes a rest for the brain and eye. If water is turned on gradually the most delicate vase may be filled to the brim, but, if it rushes with full force, you may lose both water and glass.

Lastly, I speak of another waste that for its possible harm far outreaches all others, its evils being, if I may so speak, among the externities of the class-room. The things that never can be obliterated from memory, the silent, hidden strokes which can only be deciphered in the spirituality of the child's future life, when school life is passed into the years and left its mark—the mark of wasted powers, because the teacher never carried into her work a definite ideal to be carved deep on that waiting class. It reminds us of the old carpenter of Horace standing before his block of wood, chisel in hand, but undecided whether to make of it a box or a god!

Perhaps this unconscious power for good becomes dormant and inefficient because of the class of minds we have to deal with oftentimes; the old story repeated each year! The same rank and file of mediocrity, of perverseness, of rascality, and impurity; and so the head gets tired, the heart gets sick, and the

class-room work becomes lifeless and heavy. So much the more ignoble is this neglect, because, forsooth, we must guide with pitying hand the "Poor Pips."

The forlorn "Topsies" and stupid "Smikes" of a great city! God forbid that the public school-teacher, in her arduous, life-wearing round of duty and work, shall forget to grow tender and gracious as the years press out the golden wine of her rich discipline and experience. God forbid that on the mental desert over which she has plodded, planted, and struggled, she shall at last become only the sphinx of her own work. Nay, let it rather be said of us all: "She did her best: angels could do no more."

Inspector Primary Schools San Francisco.

LAURA T. FOWLER.

SCHOOL COMPOSITIONS.

FEW tasks in school life are more appalling to boys and girls than the weekly "composition" which they are required to hand to their teachers. As a rule, even advanced scholars would rather grapple with a dozen pages of Livy or Legendre than with that one poor blank sheet, which they must cover with their own facts and fancies.

A well-known American editor lately visited the school which he had left as a boy thirty years before. "It was 'composition day,'" he writes, "and as one essay after another was read, I could hardly persuade myself that a day had passed, and that these were not my own classmates."

"The boys read the same stilted periods on 'The Fall of Rome,' 'The Triumphs of Genius,' 'Liberty,' and 'The Future of America'; and the girls overflowed with precisely the same sentiments about violets, and fairy dells, and crimson sunsets, and the lost Pleiad."

"Now," whispered the old dominie to the editor, "you shall hear the clever boy of the school. I anticipate a great career for this lad."

The composition was on the Indian Problem, or Free Trade, or some other profound subject, on which it was impossible that a boy thirteen or fourteen could have a theory or argument to advance, except those which he had heard from others. These were produced with a flood of high-sounding, irrelevant words. "The career," said the editor, "I would prophesy for such a boy would be that of an imitator, who will make his trade on the brain-capital of other men."

After this boy, a quiet, round-faced lad stepped on the platform and read a description of chickens. The lad had a poultry-yard of his own, and gave his observations on the habits, food, and marketable value of the breeds he knew. The little paper was full of useful facts, and showed a keen capacity for observation, and a dry humor.

"There is the lad who has stuff in him to make a man of weight," I said to the dominie.

Boys and girls should remember while studying their text-books they are

only the recipients of the thoughts of others, but in the school composition they should become producers of ideas. Let them, therefore, carefully avoid reproducing second-hand opinions or facts, and give an account of the simple realities of their every-day life and their own thoughts upon them. The poorest essay of this kind will call into action the original power of their brains as no other mental effort can do.—*Youths' Companion*.

THE "COMMON PEOPLE."

NOT a few ambitious youth look upon the masses of the people as "common" and hardly worthy of respectful consideration, very much as Simon Peter looked upon men outside of his "set," or sect, before the vision of the "great sheet" radically altered his opinion. Such beginners handicap themselves, and unless, like Peter, their "view receives a change," the keen observer of men can already discount their chances of success in life.

When Walter Scott's daughter condemned something for being "vulgar," her father very sharply replied, "You speak like a very young lady. Do you know the meaning of the word 'vulgar'? It is only 'common.' Nothing that is common, except wickedness, can deserve to be spoken of in a tone of contempt. When you have lived to my years, you will agree with me in thanking God that nothing really worth having in this world is uncommon."

We advise every young man who is being divorced from the people by his education to cut out these words and paste them in his pocket-book. Let him read every time he is tempted by the narrow influences of caste. That temptation must inevitably do this nation much harm, unless our educated young men resist it.

A tendency of our higher schools is to separate their pupils from the people, so that they have no sympathy with Lincoln's words: "Government of the people, by the people, and for the people."

It used to be said that eloquence was dirt-cheap in the United States. Yet there are not a score of preachers, lawyers, and statesmen who so speak as to hold, convince, and move the people. Demosthenes did, and the Athenians clamored to be led against Philip. Whitefield did, and his audience bowed themselves in penitence. Dwight Moody does, and the undergraduates of Oxford and Cambridge rise up in public to ask for prayers.

"Thoughts that breathe and words that burn" come only to those who, like them, sympathize with the people, feel the beating of the people's heart, and learn also the dialect of the street. A young man who would do good work as orator, or writer, or as leader, must keep so close to the people as to know them and feel with them, as well as for them.

Even the scholarly Emerson, himself by nature an intellectual hermit, says that the street must be one of the orator's schools, because its language is superior in force to that of the academy.

"The speech of the man in the street," he adds, "is invariably strong. . . . The power of their speech is, that it is perfectly understood by all. . . . When any orator at the bar, or in the Senate, rises in his thoughts, he descends in his language; that is, when he rises to any height of thought or of passion, he comes down to a language level with the ear of all his audience." And how can he know this without knowing the people?

Burke says that the practical superiority of Homer and Shakespeare "over all other men arose from their practical knowledge of all other men." "The true science," says an old French author, "and the true study of man is man." Pope versified the sentiment into, "The proper study of mankind is man." Every great orator, writer, painter, and leader has acted upon the idea.

George Whitefield studied men and the English dramatists while acting as tapster in his mother's tavern. After he had closed the tavern-shutters for the night, he would read the dramatic portions of the Bible. He wished to learn all he could about men and women.

When he came to preach, men not only wondered at his dramatic style of speaking, which held spellbound great masses of men and women, but at the knowledge of the human heart which shaped his arguments and appeals. A tavern was no bad school for the man who had to preach to the roughs, peasants, and workmen of England.

"I have read books enough," writes Walter Scott, "and conversed with enough splendidly educated men in my time; but I assure you I have heard higher sentiments from the lips of poor uneducated men and women than I ever met with out of the pages of the Bible." But he was among Scotchmen who had been educated in high sentiment by the study of their Bibles.

Of Him who spake as never man spake it is said, "the common people heard Him gladly." But they did not care to hear the Pharisees who sneeringly said of them, "This people knoweth not the law and are cursed."

Nature has ordained that there shall be classes in human society. The development of the race depends upon the friendly and sympathetic relations of these classes. By a law that is inexorable, the higher can only find safety and permanence in seeking the good will and elevation of the lower, and the intellect and self-restraint of the lower can only be trained and developed by the teachings and sympathy of the higher.

Whenever the intellect and the religion of this republic fail to see and act upon this great fundamental principle of nature and of Christianity, that moment its downfall is assured.—*Youths' Companion*.

A young woman of Boston has written a four-act play, to be performed by seven girls. In the first act the girls talk separately. In the second and succeeding acts they all talk at once. It is difficult to understand how the play can possess sufficient merit to compensate for the glaring improbability which runs through its first quarter.—*Exchange*.

UNFAMILIAR NAMES OF FAMILIAR BIRDS.—II.

AT this season of the year the cheerful voice of the valley quail, as he calls to his mate or warns her of approaching danger, may be heard from the thickets in almost any portion of the State. But to study the life and habits of this interesting bird one must visit places where they have not been hunted to such an extent as to cause them to take flight at the first appearance of a person. Those who hunt for the markets have made the form and appearance of the quail so familiar, even to the residents of our large cities, that any description would be superfluous.

At the time Mr. Shaw reported the discovery of this their new variety of quail to scientists, the Greek term *Ortyx*, a quail, had already been applied to the Eastern, or Virginia quail, the well-known "Bob White" quail of the States east of the Mississippi River, which received the name *Ortyx Virginiana*.

The California quail was, therefore, named from its most marked peculiarity, its crested head, receiving the name *Lophortyx Californica* (Lŏph-ŏr'-tyx Căl-ĭ-fŏr'-nĭ-că), the California crested quail, from the Greek words *lophos*, a crest, and *ortyx*, a quail.

The specific name needs no explanation; and so we pass to his relative, the mountain quail. The life history of this beautiful bird is very brief indeed. But very few ornithologists have ever had an opportunity to carefully investigate its character and habits.

From their home among the high ranges of the Sierra Nevada and Coast mountains they only descend to the foothills when driven from their usual haunts by heavy storms or lack of food, and then are away to the densest thickets at the least suspicion of danger. If any of the teachers of summer schools in the mountains are looking for a subject for original investigation, the habits of the mountain quail offer a most inviting field, and one, too, in which they need fear no intrusion.

In size the mountain quail considerably exceeds its valley relative, as it does in the brightness and beauty of its plumage. Its crest is longer but less graceful than that of the valley quail.

The scientific name of the mountain quail is most happily applied. Nothing could be more appropriate to this brightly feathered resident of the mountain tops than *Orortyx Picla*, (Or-ŏr'-tyx Pic'-tă), the painted mountain quail, from the Greek *oros*, a mountain, *ortyx*, a quail, and the latin *picla*, painted, in reference to the brilliant and beautiful colors of the feathers, especially of the long, bright reddish-brown feathers along the sides and under the wings, making this by far the most gorgeously decked of any member of the quail family.

R. S. CLASON.

Oakland.

THE trouble and worry and wear and tear that comes from hating people makes hating unprofitable.

EDITORIAL DEPARTMENT.

SPECIMENS.

THE JOURNAL has always gladly conceded the personal high character of the present State Superintendent of Public Instruction. Such strictures as have appeared in these pages reflect not on that gentleman's character, but on his judgment and the efficiency with which he administers his important trust.

His course with regard to this JOURNAL was but the first of a series of demonstrations showing his inability to sympathize with the public school sentiment of the State—the sentiment as represented by its teachers and school officers. His administration adds another to the list of men eminent in military stations, but failures in civil life. In a word, Mr. Welcker shows himself the superintendent *over* the schools of California, not superintendent *of* the schools.

In two recent "decisions" from the state office, he cogently displays his inability to comprehend the spirit in which the American people have established their system of popular education.

The first "decision" expresses the opinion that our schools are closed against Mongolian children, no matter whether born in China or California.

Whether sound or unsound, this opinion is in bad taste, and has the unmistakable odor of demagogism. But it is hardly necessary for us to discuss the question here. The press of the State, irrespective of politics, has practically decided that the "decision" would not stand an hour in the way of the admission of Mongolians into our schools, were any such determined to enter.

The second opinion is in answer to a question which never could have arisen under any but the present administration. Since the first rude school-house reared its rough pine walls on the El Dorado hills, those walls have resounded to the hymns of the Sabbath service, and the voice of priest or parson exhorting men to a better life.

And so for thirty years, in hundreds of by-ways, the school-house has been the meeting-house; and no harm has come to the schools, and no man has found reason to complain.

Rather than express our own opinion and feeling on this subject we quote from two of the most prominent interior papers of the State, the *Salinas Index* and the *Marysville Appeal*. The *Index* says:

WELCKER'S EXPLANATION.

The *Index* of the 2nd inst. contained an editorial item to the effect that State Superintendent Welcker had decided that "the constitutional prohibition forbidding the Bible and sectarian teachings in the public schools also prohibits trustees from allowing school-houses to be used on Sunday for religious purposes, and that any district where the school-house has been used for worship by any sect of Christians will have its money withheld." Not having seen the full text of the decision, only an extract, and not wishing to do Mr. Welcker an injustice, we wrote to him, inclosing the article which had appeared in the *Index*, and asking him if he had made the decision referred to. The following reply has been received:

STATE OF CALIFORNIA,
DEPARTMENT OF PUBLIC INSTRUCTION,
SACRAMENTO, August 10, 1883.

W. J. HILL, Esq.—Dear Sir: The decision you referred to has been misunderstood. Its meaning is that the school-houses are erected for school purposes alone, but leaves their control in the hands of the trustees; but says if they chose to allow them to be used for divine worship, or any other purpose, it must

be without harm, danger, or inconvenience to the schools. Further, that if the trustees should allow the school-house to be so used, and it should result in the teaching, in the schools, of either partisan or denominational doctrines, the funds would, under the law, have to be withheld. See the official journal for August—perhaps September next.

Respectfully your obedient servant,

W. T. WELCKER, Supt. Pub. Inst.

The *Appeal* says :

A SINGULAR ORDER.

"The State Superintendent of Public Instruction has rendered a decision forbidding trustees from allowing school-houses to be used on Sunday for religious purposes, and gives notice that any district where the school-house is used by any sect of Christians will have its money withheld."

We clipped the above from the *Red Bluff Cause*, whose editor gives Superintendent Welcker a severe and well-deserved dressing, characterizing the order as "worse than the blue laws of Connecticut, the edicts of Robespierre or the proclamation of Herod, King of Judea. The cold, hard letter of the law may justify Welcker in issuing such an order, but conscience, truth, morality, temperance, honor, honesty, virtue, and all that goes to make up a good man or a good woman or a good child, recoils and revolts at the very thought that a public school-house shall not be used under any circumstances to read the word of God in, and learn its sacred and sublime teachings, and sing praise to the Giver of all good." The *Cause* calls upon the Superintendent to revoke his order or resign. The press of the State is also invited to give public expression in regard to this outrage. It would be a singular fact if the people of a school district, after building and paying for their school-house, would not have the right to use it for all proper purposes. If Mr. Welcker made the order as charged, and expects it will be observed, he is not familiar with the public-spirit of American-born citizens. We are inclined to believe that there is some mistake about the charge published by the *Cause*.

EDITORIAL PARAGRAPHS.

PROFESSOR Flatt's paper in this number of the JOURNAL is a magnificent contribution to our educational literature. It fairly abounds in telling points.

Professor Flatt answers one question the enemies of the schools never weary of asking. They inquire, How much education should the State give? or, Where is the limit of the State's obligation to teach?

He answers: "The State should give as much education as the child can take."

This is conclusive.

It is hardly to be doubted that every one reads Mr. Drake's "The Modoc School." Those who do not are missing a very good thing. Under the guise of an interesting tale, Mr. Drake, in his inimitable style, is preaching little sermons on teaching, work, and life, that cannot but improve the reader.

Such lessons as Mr. Drake teaches are better than a hundred formal articles on methods; they furnish food for thought, and are the bases for original work and method.

WE have been in receipt, lately, of many school reports from all parts of the Union. None of these show more evidence of originality and progress than one from Superintendent James G. Kennedy of San Jose in our own State. His

course of study is worthy of the highest commendation, being at once well graded and practical. The manner in which language is taught, by his suggestions, from the lowest to the highest grade in the department, is in accordance with the advance in language training during the past few years.

The examination questions in this report are likewise very commendable. They are free from "catches," yet necessitate a thorough acquaintance with each subject for a successful examination.

Great credit is due Superintendent Kennedy for the high efficiency to which the San Jose schools have been brought under his management.

AMONG the visitors to San Francisco, in August, to attend the grand conclave of Knights Templar, were Professors Crawford of Red Bluff, Lighthall of San Jose, Superintendent Chandler of Amador, and Murphy of Tulare. Quite a number of teachers from different sections were here, and familiar faces made the occasion resemble a gathering of the State Teachers' Association.

THE most notable book, since John Swett's *Methods of Teaching*, is Colonel Parker's "Talks on Teaching." It is really the best book of the day. The teacher who does not care to get it, to see what the "Quincy system" is, what Colonel Parker is, cares nothing for his occupation beyond the dollars and cents it produces per month.

The Public School, *The Primary Teacher*, and *The Kindergarten Messenger* are to be united into *one publication*—the first issue of the new paper to be given to the public August 20th. The new paper will be of the same shape as *The Public School*, of twice the size, and will contain as much reading-matter as all the papers which form the combination. The editors are T. W. Bicknell, W. E. Sheldon, and W. S. Hailmann, with a corps of paid writers unsurpassed in their fields of labor. The price of *The New-School Magazine* will be *only one dollar* a year, and will be continued to all the present subscribers of *The Public School* and *The Primary Teacher*.

This new journal will be clubbed with our periodical at the rate of \$2.40 per year.

THE National Educational Association honored educational journals, the profession of teaching, and above all itself, by the election of Dr. Thomas W. Bicknell as president for the year, 1883-84. No man in America is doing more honest service in advancing the great interests of education than he; no man is displaying more varied abilities.

We are sure the duties of the presidency of the Association will be filled with vigor and dignity.

School Education (published in Minnesota) is the title of an exchange new to us, but already in its second year. It is among the best of our exchanges, full of varied matter, carefully prepared, and with incisive and vigorous editorial articles. Long may it live!

SCIENCE RECORD.

THIS RECORD is under the editorial charge of Prof. J. B. McCHESENEY, to whom all communications in reference thereto must be addressed.

BELGIUM and Switzerland have a larger number of subscribers to the telephone service than any other countries in Europe. New York has more subscribers than all England.

SOME English chemists and sanitary reformers have started a movement to make bread from the entire grain of wheat, and not from the inner portion only. The movement has the support of the first physiologists of the day.

IF the English language were divided into one hundred parts, sixty would be Saxon, thirty would be Latin, including, of course, the Latin that has come to us through the French, and five parts would be Greek.

THE uses of paper are becoming almost infinite. The Chinese and Japanese make sewers out of it. The best car-wheels are now composed of a somewhat similar preparation, and it has been decided to use it for the covering of the colossal dome of the new Palais de Justice in Brussels, which is rapidly approaching completion.

KARL GOHMIA of Berne, after a series of experiments extending over several years, has succeeded in producing artificial mother-of-pearl, indistinguishable in every respect from the natural article. It can be molded in any shape, produced in any color, is impervious to heat and cold, and its price will be much less than that of ordinary mother-of-pearl.

AT the Greenwich Observatory a very ingenious instrument is in use to record automatically the duration of sunshine through the day. It consists of a glass globe hung within a hemispherical cup of slightly greater diameter, the cup being lined with a strip of paper covered with stencil ink. The globe is entirely exposed upon the roof, and while the sun is shining acts as a burning-glass, and causes a continuous line to be made upon the paper. This line will be broken, however, as often as the sun's light is obscured by clouds, and thus a record of the amount of sunshine for the day will be obtained.

COTTON-SEED oil has been found by Dr. E. Scheibe to be very suitable for many purposes for which salad oil is used. This has been known for many years to Italian exporters of olive oil, and so it has come to pass that the oil taken from the cotton seed of our own country comes back to us duly doctored, put up in orthodox olive-oil flasks, and appropriately weighted with tariff and other charges. Pure cotton-seed oil is clear, transparent, golden yellow in color, and mild in taste. It has no smell. It can then be easily sold for olive oil or mixed with it. Cotton-seed oil solidifies at 1° , has a specific gravity of .923, and saponifies with caustic alkalies or lead oxide, and these facts may lead to its detection.

THE solar theory lately propounded by Dr. Siemens, President of the British Science Association, does not meet with favor in the eye of Dr. Tyndall, the eminent physicist. Dr. Siemens suggested that interstellar space is filled with various combustible gases, which are drawn in by the sun in its onward march; that these gases rush in from the pole of the sun towards its equator, producing intense heat by their combustion on the sun's surface; that the products of this combustion are then thrown off into space, where in a highly rarefied state they are dissociated by the solar rays and are once more ready to become fuel for another sun. In commenting on this theory Dr. Tyndall says: "It would give me extreme pleasure to be able to point to my researches in confirmation of the solar theory recently enunciated by my friend the President of the British Association. But though the experiments which I have made on the decomposition of vapors by light might be numbered by the thousand, I have, to any regret, encountered no fact which proves that free aqueous vapor is decomposed by the solar rays, or that the sun is reheated by the combination of gases, in the severance of which it had previously sacrificed its heat."

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* Our list of County Boards is complete with four exceptions, which will appear in our October issue.

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NEWS RECORD.

Foreign and Domestic.

On July 22d, General E. O. C. Ord, U. S. A., died of yellow fever at Havana, aged sixty-five years. He was an accomplished and gallant officer, and participated in many of the most important campaigns of the civil war.

The French have recommenced hostilities in Anam, and after severe fighting have captured Hue, the capital, and compelled the Emperor to sue for peace.

In August fresh outbreaks occurred in Spain. A hastily summoned Cabinet council resolved to suspend constitutional guarantees throughout the country and declare a state of siege wherever necessary.

A St. Petersburg dispatch said the coronation decree granting liberty of worship to dissenters only affected a million of so-called registered dissenters. There are 14,000,000 still unrelieved of their religious disabilities.

The revolutionary agitation in Hayti continues to increase. The Government was penniless and business was at a complete standstill. A great battle has been fought before Jeremie, in which the Government troops were defeated and seven of their generals were taken and shot.

On August 11th the Austrian, German, and Turkish Governments completed negotiations for the complete annexation of Bosnia and Herzegovina by Austria.

Educational.

The total gifts and bequests of the late John G. Green to Princeton College foot up nearly a million and a half.

Gov. Cleveland laid the foundation of two new buildings for Cornell University, the Cornell-McGraw and the McGraw-Fiske edifices.

The late Bishop Colenso was the author of an arithmetic of which more than half a million copies were sold.

Emperor William has directed that the 400th anniversary of the birth of Martin Luther be observed by all Protestant schools. The anniversary will be the 10th of November. The students of the German universities were to celebrate at Erfurt on August 8, the entry of Luther into that town.

Col. Homer B. Sprague has been elected President of the American Institute of Instruction.

The School Board of St. Paul have passed an order that after September first there shall be no corporal punishment in the schools.

Personal.

The estate of the late Henry W. Longfellow has been finally appraised, and the property left by the poet is valued at \$356,320.80; and Mr. Longfellow was not a saving man either. But his was one of the few instances where merit received its adequate reward.

"I know you," said King Theodore of Abyssinia to the English. "First you send a missionary, then you send a consul to look after the missionary; then you send an army to look after the consul."

The Crusade against Greek and Latin inaugurated by Charles Francis Adams, Jr., is joined by Professor Painter, of Roanoke College, Virginia.

Mark Twain has invented a "a history game" to be played with cards and a cribbage-board.

In his paper on "Novels" read before the Concord School of Philosophy, Mr. Julian Hawthorne spoke of Turgeneff as the parent of recent fiction, particularly in America, adding that Mr. Henry James, who began with a mixture of idealism and realism, was caught by the current of Turgeneff and "has become wholly a realist of the self-criticising sort." Mr. Hawthorne also spoke of the "metaphysical dilettanteism" of Bulwer and the "gloomy wisdom" of George Eliot.

General.

It is only a month before the public will have the new postal notes, the limit of their preparation being September 3. They will prove to be a great convenience, as the sender can transmit any sum from one cent to five dollars. The New York *Tribune* illustrates the convenience of the new arrangement by stating that "a lady living out of town who wants to send \$3.79 to a dry goods store in New York will hand that sum and 3 cents fee to the postmaster. He will give her an order with the figure three punched in the dollar column, the figure seven in the column of dimes, and the figure nine in the column of cents. This is simple and easy, and offers no chance for fraud."

We hope our readers will seize the opportunity, and send us not a few new names on these postals.

THE WORLD'S GREAT LIBRARIES.—Russia boasts a library, the Imperial Public Library, at St. Petersburg, that contains 1,000,000 volumes of books and 20,000 MSS. The British Museum, also free to the public, contains 1,500,000 printed books, 50,000 MSS., and 45,000 charters.

LITERARY NOTES.

Unusual variety and range in illustrations and reading matter, and an out-of-door quality befitting the season, are the distinctive qualities of the *September Century*. Only a few of its most interesting articles can be given here. We have a richly illustrated paper on Cape Cod, by F. Mitchell; Dr. Edward Eggleston's historical paper, in the same number, on Indian War in the Colonies; a timely and valuable illustrated article is Roger Riordan's Ornamental Forms in Nature; of popular scientific interest are Earnest Ingersoll's account of Professor Agassiz's Laboratory at Newport, with a portrait of Alex. Agassiz; The Tragedies of the Nests, by John Burroughs; a forcible argument to prove the future supremacy of New York over all the other great cities of the world is made by W. C. Conant, under the title, Will New York be the Final World Metropolis? and H. C. Bunner, in the Open Letters department, talks encouragingly and entertainingly of New York as a Field for Fiction; the second part of The Bread-winners reveals its motive as a satire on labor unions or socialism; the eighth part of A Woman's Reason is given; the third and last part of Joel Chandler Harris's Nights with Uncle Remus is offered, in addition to two humorous short stories: Our Story, by Frank R. Stockton; and Love in Old Cloathes, a modern New York love story, by H. C. Bunner.

St. Nicholas for September is a bright and breezy autumn number, which Louisa M. Alcott opens with a charming story of child-life, entitled Little Pyramus and Thisbe; Mr Daniel Beard tells us of his young friends, Tom, Dick and Harry, in Florida; Lost in the Woods is a graphic account of the remarkable adventures of the Lorre children, who for more than a week last summer wandered through the forests of northern Michigan; the Work and Play department contains the first half of a profusely illustrated article on The Playthings and Amusements of an Old-fashioned Boy, who lived when boys had to make their own toys or go without; J. T. Trowbridge tells how the Tinkham Brothers came out of the small end of the legal horn, but gained much in popular sympathy; Swept Away continues to grow in interest, and there are three entertaining chapters of Harry M. Kieffer's Recollections of a Drummer-boy; Sarah Orne Jewett, Aunt Fanny, and Celia Thaxter contribute each a poem, and there are, in addition to the usual quota of stories, sketches, and verses, illustrations by Sandham, Blum, Reinhart, Champney, Birch, Culmer Barnes, Rose Mueller, Jessie McDermott, W. H. Drake, De Cost Smith, and many others.

The *Atlantic Monthly* is a magazine the choice character of all of whose contributions renders it peculiarly adapted for a place in the district library. Some of the papers in its September issue are: A Roman Singer, V., VI., by F. Marion Crawford; En Province, III., by Henry James; King's Chapel, by Oliver Wendell Holmes; Our Nominating Machines, by George Walton Green; Poets and Birds: A Criticism, by Harriet C. W. Stanton; New-

port, VI., VII., by George Parsons Lat hrop; Glints in Auld Reekie, by H. H.; Chrysalides, by A. F.; Annexed by the Tsar, by William O. Stoddard; Along an Inland Beach, by Edith M. Thomas; Merimee in his Letters, by Maria Louise Henry; Character in Feathers, by Bradford Torrey; Lily of Strath-Farrar, by Thomas William Parsons.

Leading articles in the September *Harper* are: Dalecarlia, I., by F. D. Millet (with ten illustrations); An Unpublished Chapter of Hawaiian History, by J. F. B. Marshall; The Catskills, by Lucy C. Lillie (with eleven illustrations); Haunts of the Swamp Fox, by P. D. Hay (with six illustrations); A Castle in Spain, a novel, part V. (with five illustrations by Abbey); The Government of Cities in the State of New York, by William R. Grace; The Genesis of the Rip Van Winkle Legend, by John B. Thompson; A Silhouette, a story, by Rebecca Harding Davis.

In the *North American Review* for September we find the following: State Regulation of Corporate Profits, by Judge T. M. Cooley; Municipal Reform, by John A. Kasson, M. C.; Class Distinctions in the United States, by Richard Grant White; Shooting at Sight, by Judge James Jackson; Facts about the Caucus and the Primary, by George Walton Green; Conversations with a Solitary, Part II., by W. H. Mallock; The Limitations of Freethinking, by Rev. Dr. D. S. Phelan; An American Wild Flower, by Grant Allen.

Articles specially noteworthy in the September *Popular Science Monthly* are the following: The Germ-theory of Disease, by Professor H. Gradle, M. D.; The Remedies of Nature—Asthma, by Felix L. Oswald, M. D.; Ways of Preserving Food, by Dr. Hermann Kratzer; Insanity, by one who has been insane; Faculae and Sun-spots, by Henry A. Smith; Insects and Disease—Mosquitoes and Malaria, by A. F. A. King, M. D.; The Growth of Hygienic Science, by Professor De Chaumont, M. D., F. R. S.; Our Marriage and Divorce Laws, by E. T. Merrick; How the Earth was Peopled, I, by M. G. De Saporta.

Lee & Shepard, Boston, have published in pamphlet form the recent address of Charles Francis Adams, Jr., at Cambridge, on A College Fetish. The address is a vigorous attack on classical education, and has excited wide comment.

Examinations, like many other disagreeable things, are necessary. The teachers who feel a little "shaky" should consult THE TEACHERS' AND STUDENTS' LIBRARY. More can be accomplished in one week with this book than in a month of aimless ransacking of text-books. It covers the whole field of public school studies and is accurate. The questions enable the teacher either to examine himself or his class. One large octavo, only \$3.00. T. S. Denison, Chicago, Publisher.

THE PACIFIC SCHOOL JOURNAL.

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No. 9

THE MODOC SCHOOL.

CHAPTER V.

THE MODOC MUSIC-TEACHER.

IN the month of May, Glen Goodwin advertised for a music teacher who understood both vocal and instrumental music, and was used to teach small children.

Both he and May Harvey were fair musicians, but neither felt able nor did they feel willing to teach their pupils instrumental music.

Music is a fashion, and sometimes strikes a neighborhood like an east wind, drying up the pockets of the people, raising a musical dust for a few days, and then suddenly subsiding. The new organs, purchased of some unscrupulous agent who enticed the people with bribes of big discounts from scandalous prices, become yellow and dusty. The tired bellows squeak semi-occasionally, and music is no longer the rage. The music-teachers emigrate to some more congenial clime, or worry out an under-paid struggle while waiting for another boom.

Music is at once the best-taught and the worst-taught of all branches of study.

People are willing to pay more for instructing their children in music than in all other studies combined. In most places of any considerable size, you can find music-teachers who have grown gray in the service. They are fine players, and it may be possess good teaching ability, yet they fail to make good musicians. They spend years of hard work with a pupil and turn out a fine machine player.

Why is this? The answer is plain. Most music-teachers spend an hour training their pupils' fingers and wrists where they spend five minutes

on the head work. The eye is trained to grasp the notes and chords with marvelous quickness; the fingers follow after the eye, executing runs and trills with wonderful ease and rapidity; the ear lags somewhat behind, but receives a fair amount of instruction; but it is not its mother tongue but a foreign language, the ear is listening to. The fingers repeat what others have said; the eye reads but does not even translate, and listeners are called ignorant because they prefer to listen to the automatic organ that stands in the beer hall and grinds out music by clockwork. A good chromo is better than a poor painting, even if it has the fault of being cheaper.

Glen announced in his advertisement that applicants must expect to undergo a thorough examination, and that the successful applicant would receive at least \$1,000 a year and board.

During the next month Glen was nearly pestered into dropping music from his plan of work entirely, for applicants came by the dozens, not only from all parts of Pacific County but from all parts of the State to which the *Pacific Breaker* paid its weekly visit. Fine players, ignorant of the first principles of musical composition; fine singers, who never saw or heard of a laryngoscope, and supposed chest tones came from near the liver and head tones from back of the nose; players who could execute the *Maiden's Prayer* or *Silvery Waves* without a break, and stumbled fearfully over a simple choral or an andante voluntary; singers, who would take breath wherever it came handy—in the middle of a phrase or a word—it mattered not where.

Glen would put before them quaint old English tunes in some minor key, and they would play an absurd accompaniment in the major key.

He became disgusted with music-teachers, and they berated him, for if musicians do lack one thing more than another, it is control over their tempers.

Just as he had about determined to give up trying to find a suitable teacher, he heard, one evening, some one playing on the little cabinet organ that stood in the school-room. The children were clustered about the player, who was singing Mendelssohn's Song of the Savoyard as Glen had never before heard it sung. When he had finished, even the Spanish children, who could only understand the musical part of that mournful song, were almost crying.

"That is too mournful," said the stranger, "now let us laugh over this Carlist song," which he sang first in Spanish and then with an English translation, and the air being simple, the children were soon all singing, "Urbanos, tunan tes, cochinos, ladrones," as heartily as the stranger, who laughingly told them that it was hardly polite to call their foes "pigs and thieves" just because it didn't sound so badly in Spanish.

Archie King's sharp eyes first discovered Glen at the door, and running to him, Archie said eagerly, "It's one of my folks. Guess who it is," and Glen smiled and said, "I guess it must be your Uncle Harry, of whose singing you have told me so much," and going up to the new-comer he bade him welcome to California and Cañada Grande.

It was indeed Archie's Uncle Harry, and they spent a jolly evening talking and singing, going from music to other subjects, and then drifting back to music.

"How do you like California, and what do you think of the people of California?" Nora asked Mr. King during the evening, after the little ones had left for bed.

"I will tell you what I think of one Californian," he said. Turning to the piano and striking the keys with a brilliant touch, he improvised a dashing waltz, wandering off into various keys and movements, now *allegro*, and occasionally *andantino*, sometimes discordant, then breaking into unexpected harmony, yet holding fast all the while to a pretty little melody which Nora finally recognized as an old English song, entitled "Love will find out the way."

"And do all our people impress you in that way?" inquired Nora, with a mischievous glance towards May Harvey.

Mr. King shook his head, and chiming in with the spirit of Nora's question, began playing a charming *Caprice*, full of strange vagaries, and ending with a grand triumphal march, bearing a suspicious resemblance to "See the Conquering Hero Comes," just as Glen returned to the room.

To say that May Harvey felt provoked would be a mild statement of her feelings. How dare this stranger thus coolly pretend to read her character and her feelings, and then dispose of her future so unceremoniously!

But if she was not pleased with Mr. King, Glen was delighted both with his playing and his marvelous way of getting along with the little ones who had crowded about him the whole evening.

"You were saying you wanted to look around for a small place, Mr. King," said Glen. "I should be glad to have you take charge of our little ones' music, and that will give you a good chance to become acquainted with our climate and county before buying."

Then Glen gave him a humorous description of his late musical trials, and ended by offering Mr. King \$100 per month for as long as he should desire to stay.

After some hesitation, Mr. King accepted this offer, and the next day he began his task.

Fortunately, nearly all the children had quite a little natural taste for music, for without "a good ear," as it is called, it is a waste of time to devote much attention to music.

The progress of the children was remarkable, for Harry King was enthusiastic and attentive to his work, and all were delighted with him except May Harvey, who had seemingly taken an unaccountable dislike to him. However, this did not seem to worry Harry King, who repaid slights and sarcasms with such a lofty air of good-humored forbearance, that May grew more and more exasperated towards this "music-mad monarch," as she called him.

It was surprising to see the fascination he seemed to exert over the children.

Pupils whose love Glen had been months in gaining surrendered at once to the charming ways of this new-comer. Archie called him "Uncle Harry," and the name was quickly adopted by the other little ones, who clung to it despite Glen's remonstrances that "Mr. King" would sound more respectful. It doesn't seem natural to "Mr." some people.

In teaching the little ones to sing, he made them sustain notes a long time, swelling from soft to loud and then to soft again, paying attention to their breathing that their tones might be pure, true, and even. He made them careful to observe the pitch, for nearly all singers have a tendency to flat in singing, especially if the music is a little difficult. The pieces he chose for practice were nearly all somewhat dramatic; for milk-and-water pieces he had little regard, and the drill exercises were tame enough, if tameness is valuable. Especially did he drill the pupils upon the scale, for one who can sing the scale *well* up or down, with pure, true, expressive tones, will be able to sing any piece well that is within reach of his voice and understanding. He cautioned them about trying pieces far beyond their capabilities or unsuited to their voices.

One voice may be well adapted to ballads that would fail on bravuras, while a fine operatic singer might sing anthems indifferently. Yet singers and players should practice at home a grade of music that is higher and more difficult than that they intend to have the public hear, for the ability to execute a higher class of music will give to the performance of that which is easier a smoothness, an ease, or a brilliancy of expression which nothing else can give.

They all enjoyed the sings after supper, and it gradually became the custom for the young people of the neighborhood, as well as some of the elders, to drop in to the sings on Tuesday and Friday evenings. In the intermission, Glen would sometimes read a piece, or give a little talk explaining some new thing in teaching which he had found out. All the neighboring schools were benefited by this, and superintendent Barker, awed by the display of books on Theory and Practice in Glen's library, and the wealth of modern apparatus Glen had purchased, began to mention the Modoc school as the model school of the county, if not of the State.

It takes but little, sometimes, to get the reputation of being a good teacher. A little judicious tooting of one's horn; a few new and attractive educational pills to dose the pupils with when visitors are present; a wise and knowing air, and a few well-sounding stock phrases, when education is talked of—and the work is done.

Not that this was Glen's method; for pecuniarily he was not dependent on the verdict of the world; but he liked to hear his methods praised, though he secretly thought those who did praise them showed ignorance by so doing. But his teaching was improving, and he could see that he was becoming more and more indebted to Mr. King for wise suggestions and instructive hints.

Mr. King drew most of his illustrations from the best methods of teaching music, and it was wonderful to see the similarities he pointed out between the courses to be pursued in teaching all branches.

He likened the multiplication table in arithmetic to the scales in music, and showed how the mind should grasp combinations of figures, as the musician reads the chords. He pointed out the connection between the constant practice of the simpler addition tables and the daily five-finger exercises, and showed Glen how he worked examples in a certain rhythmic manner, recognizing the proper sequences as a musician follows a certain well-known succession of chords. He proved it to be as easy to perform several operations in arithmetic simultaneously as to read music from a score of four or more parts; that the hand could be trained to record the work of the eye as rapidly in arithmetic as in music.

Glen found it a great relief to have a man to whom he felt it safe to confide the children whenever he wanted to go to Pacificton or elsewhere on business. Though so popular with the children, Mr. King was a born ruler, and young and old yielded to his fascination of manner. Even May Harvey owned he could be very agreeable when he chose; but she treated him with great coolness, and felt many times that had he chosen to retaliate and pay back her sarcastic speeches in like currency she would have hard work to avoid the wounds he could inflict.

If rightly handled, sarcasm is a valuable weapon in a teacher's hand; but the shafts should only prick for a time, and not fester and rankle in the wounds.

C. M. DRAKE.

Saticoy.

ART IN THE SCHOOLROOM.

BY art in the schoolroom, I do not mean alone the art of teaching, the art of computation, or any of the other so-called arts; but I mean, pretentious as it may seem, instruction as extended as possible in what is known as the fine arts. To encourage:

1st. A knowledge of what has been done in the world's history to improve the taste, the imagination, the ideality of man.

2d. A desire to discern the beautiful in all created things; as well in the artificial as natural; not forgetting that art is but the shadow of nature, as man is but the image or picture of God.

3d. A just and nice appreciation of what is truly beautiful in art.

4th. And finally, that "the most important element," as well in art as in nature, "is the moral idea." That there is no beauty except in truth, all else but distortion and monstrosities.

The public school system has given us ample opportunities and groundwork or basis for an art education, and I presume expects each individual teacher to do his duty in cultivating whatever faculties or perceptions go toward making the pupil a most perfect man. Yet one might wish to see

some of these implied expectations made more important or gaining a more decided attention ; for instance, that some of the money spent in books that are never read might be expended upon fine engravings or photographs of real works of art ; or that each school might have a large scrap-book or portfolio and the pupils and public be encouraged to contribute thereunto, not coarse or cheap, but worthy specimens. For how else except by seeing really fine things can a taste for the ideal be cultivated? Of course I do not suppose that any very extensive collection could or should be made, but if every schoolroom possessed half a dozen, well, I will say three or even one, truly fine picture, it would be a step towards the refining influence of the beautiful.

The idea of picture-teaching in kindergarten and primary work is not a new one by any means, yet I am afraid we do not realize that the examples usually used for such instruction soon become tiresome to the little minds and ridiculous to the more advanced.

For example "The Desolate Home;" moral, the evils of intoxication. Picture a man dressed in yellow pants and green coat in a strictly horizontal position ; an emaciated, uncombed female on the other side of the partition dressed in blue and red ; a departed spirit leaning over both shedding painted tears and attired in white, with pink-tipped wings. (This is a painting.)

Then we have to adorn the walls of the school-room :

The Father of his Country, examining the backs of his hands or the tips of his finger-nails, probably with a view of paring them. (This is an engraving.)

Lincoln holding out what Mark Twain suggests may be "a soiled napkin," with an expression upon his face from which one might infer he was complaining of the washing of the aforesaid napkin. (This is a statue.)

Such are the works of art in and about our schools.

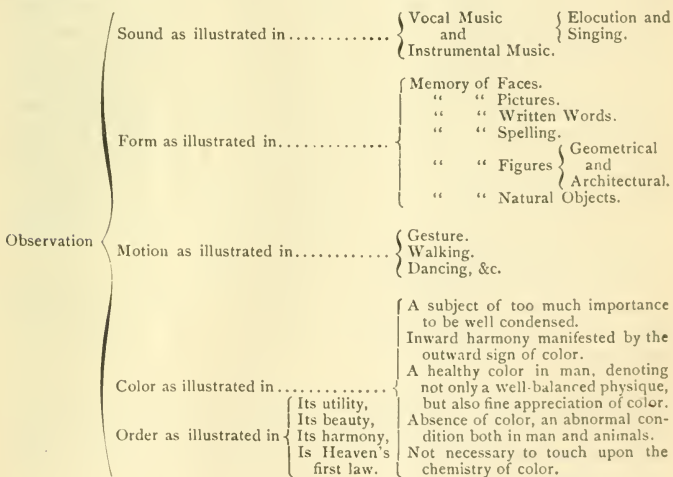
Art has not reached its perfection, nor perhaps in the age of man ever will ; its progress coincides with social progress, inasmuch as it manifests itself unevenly ; the future's work, then, is to make the order of development more uniform. While on the one hand we recognize the highest development, on the other we perceive the lowest grade of ignorance. So, much that is good runs the risk of perishing for the want of appreciation, one might suppose. No ! If the "moral idea" be there, down deep under the dust of perhaps ages of unappreciation, it is not perishing, but only growing more valuable to reward the patient toiler of the future.

Yet appreciation is not all that is necessary for a cultivation of art. Art means the doing.

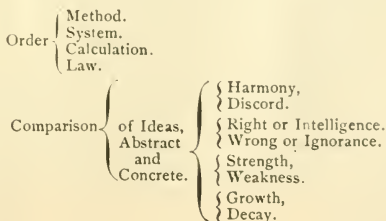
The Romans appreciated the arts of Greece ; not only appreciated, but appropriated the art treasures and artisans as well ; and Rome was decorated with a craze, I suppose, about on a par with the Japanese and æsthetic craze of to-day. Before the introduction of Greek art, the Romans possessed especially in architecture an art of their own, which has in its massive, ponderous grandeur never been equaled. The characteristic recognition of whatever was beautiful without the faculty of analyzing the fitness (the harmony of scenery, climate, and use) led them to immediately appropriate whatever commended itself to their minds ; consequently the architectural beauties of Greece were

spread irrespective of their finer significance, like a delicate network of dead nerves and ganglia over gigantic, rugged Rome. Gradually the sternness faded from her aspect, and tricked out in her gew-gaws Rome, like the Amazon race, fell an easy prey to the blandishments of her captive lovers, demanding first only their art, latterly their ideas, and thus lost the power of working and thinking for herself. So fell Rome.

All very well you say for an essay, but there are some long words and abstract ideas—are the unfortunate children to be dosed with such? Not at all. Let me begin again. I know how impatient teachers are with anything but the practical—probably from long association with children, who likewise demand that methods shall be made plain and results well defined. Of course much work must be done before any one can come to an abstract conclusion or the simplest rule be made. Therefore, I have blocked out a rude diagram of some of the faculties to be quickened and cultivated, also their direction according to my present limited understanding of the work. Here is the chart: Faculties (some of them), "Observation," "Order," "Comparison."



You will see that I intend Order to be a matter of observation as well as cultivation.



Here, of course, I have taken up this subject simply from the inside. Art is of a dual character, and should be so treated, recognizing the use as well as the beauty.

To the thinking and reasoning youth, as with the thinking and reasoning man after a thorough survey of his own capabilities and abilities; after the first realization that there *are* weak, damaged, and inefficient places in his mentality, in his plans, in his results, there comes a reaction, a helplessness, or relaxation of purpose, perhaps an audible plaint of its being no use to try. But far from being a sign of lasting weakness or real inability to proceed, this is a sign of coming strength. Let us remember how often in periods of discouragement we ourselves have gathered strength to go on, to force our way through maybe the blackest wall of fog into perhaps the brightest, warmest, gladdest day.

At this period of a pupil's career, the fewest words are the most influential; *then 'tis* "the silent influence" so often accorded to the school-room that makes itself felt. Now is the teacher's time to bridge over those dangerous parts. When the rushing streams of youthful energy and endeavor were swollen with conscious merit or fancied triumphs, there was danger of the bridge being swept away and the work having to be done over; but now while the tide is low, put in your heavy timbers if you will—build silently but strong. If the intuitive perceptions (allow me to so designate them) and artistic capacity are deficient, of course they cannot be cultivated as might be possible, although I doubt if there be any person entirely without artistic capacity; right here is the time to draw attention to the grand scheme of compensation. Nature makes no mistake, whatever may be said of her pupil, art; if she inflicts her child with blindness, does she not, to compensate him, quicken his sense of touch and sound? If she denies him inherited musical capacity, she almost invariably endows him with superior mechanical ability.

But to return to my subject: let us, I repeat, by all means in our power, strengthen and encourage the love of the beautiful in those we have under our care; and if art be *one* of the *means* to do so, let us use it wisely and unsparingly.

Years fly rapidly by. The boy of to-day will soon be the man with his duties at desk or farm, and probably will forget the cube-root rule; but never in all the struggle of life will his trained and appreciative eye or ear forget to find beauty wherever he discerns beauty, with its soul the "moral idea," either in art or nature.

Our girls have grown into modest, intelligent womanhood; care or sorrow overtakes them, yet will care be none the harder or sorrow more bitter if they carry with them the sound of music and poetry, and the memory of the beautiful that was once their delight to behold and cultivate. So shall the mind, in perfect harmony with outward and inward things, "be finely touched to fine issues." Or bravely consoling itself, remember there is no loss in the great storehouse of life, that a seeming loss is but the transfer to where it (the perfect and beautiful) shall bear a more important part, learning and teaching that the compensation is added vigor elsewhere. Thus shall woman's art, wherever it be employed, be indeed the highest of arts.

TRUANCY.

THE EXPERIENCE OF TWO YOUNG LADIES IN THE BENICIA PUBLIC SCHOOL.

THE day was beautiful, and nature,
glad and bright,
Appeared o'erflowing with a wonderful delight.

Poor Fan and I had been compelled all
morn to stay

Within the schoolroom walls, our lessons
dull to say.

But when the welcome noonday hour had
set us free,

Our spirits, wild as birds, would not im-
prisoned be ;

We donned our hats and sought the cool,
refreshing shore,

Resolved of stupid books that day we'd
see no more.

With some regret at first we viewed our
truant way,

But wind and waves and rocks all seemed
to bid us stay ;

And ere we had disposed our baskets good-
ly store,

The pang had gone, to trouble us no more.

Erelong, the drum its oft-repeated sum-
mons beat,

ut could not lure us from our cozy, safe
retreat ;

We saw our classmates as they marched in-
to the hall,

Poor slaves, we thought, of a mistaken du-
ty's call.

And then we bounded forth in happy girl-
ish glee,

With song and laughter to enjoy our
liberty ;

We rambled over flowery banks and pebbly
beach,

To learn the many lessons Nature has to
teach.

We chased the butterflies and other insects
caught ;

Beneath the mossy stones for bugs and
worms we sought.

At last we paused to rest, quite weary with
our race,

To view our treasures o'er, in some cool,
shady place.

Benicia.

Of bugs we'd studied much, but voted them
a bore,

We studied for per cent., and cared for
nothing more ;

But now with joy we tried our lessons to
recall,

Of parts, we knew the names, and sought
to find them all.

Thus quickly time sped on, and ere our
task was done,

The western sky was gilded by the setting
sun ;

And in this afternoon, we felt we had gain-
ed more

Than from the musty books in days we'd
learned before.

And then we climbed the cliff, on lovely
scenes to look,

To read the living words in Nature's open
book.

No reader ever told of scenes one-half so
grand

As those which met our view around on
every hand.

The white-sailed ships, majestic hills, and
golden west,

The water bright, and sun slow sinking to
his rest :

From these we turned, yet wished that we
might longer stay,

And homeward went, reciting all we'd
learned that day.

Arithmetic we'd learned, our blessings
counting o'er,

Philosophy, in sea, in air, on pebbly shore ;

"In running brooks were books, in stones
we sermons found,"

And music learned from birds that gayly
flitted round.

Of course they punished us for truancy
from school,

And said 'twas very wrong for us to break
the rule ;

But still with conscience clear our truant
way we view,

And really think we might have done
much worse—don't you ?

ALLAN P. SANBORN.

DOES THE PROFESSION ADVANCE? *

PART II.

OCCASIONALLY answers occur in teachers' examinations which would be considered ridiculously funny were it not that they expose the pitiful ignorance of those who aspire to heights of which they have no conception. The following are some samples copied from a report in an eastern paper: "Q. What is a fraction? A. A part of a *hole*. Q. What use do you make of a word whose meaning you do not understand? A. You don't make much use of it, and when you do, not very much. Q. Give a synonym for celebrate. A. Thankingfull. Q. Who were the Quakers? A. The Quakers founded Pennsylvania, led by William Tell." To show that some Californians are bound not to let their Eastern cousins outdo them, I have only to refer you to a list of answers to California questions, read by Professor Allen of the State Normal School, before a teachers' institute, for the amusement of that body. In this list, lapidary was defined as the son of a shoemaker; Lexington was given as a derivative from *lex*, and defined as "according to law"; Hellenic was defined as "pertaining to hell"; phlebotomy as "the science of fleas"; lethargy as "the art of making leather"; eucharist as "one who plays eucher"; the heart was located in the left cavity of the stomach; the scapula was defined as the back part of the top of the head, which an Indian takes off in battle; and a cotton-gin was said to be a liquor made from cotton seed. One degree of respect more may perhaps be allowed to those who drew attention from their ignorance by the wit of their answers; as, "Q. Where is the Golden Horn? A. On the head of the golden calf." Or like the applicant in Solano County, who, for the sake of perpetrating an atrocious pun, was honest enough to avow his mercenary motives. To the question, "What kind of drawing do you like best?" he answered, "I like best the drawing of my monthly order producing a draft on the county treasury."

All of this may lead some to claim, as a panacea for such evils, a thorough course for would-be teachers in the University or Normal School. But this, while undoubtedly good, is not a panacea, and the fact remains that education does not always educate—at least does not always fit persons to be teachers. The most listless, lifeless school I ever visited was kept (I will not say taught) by a young man who graduated second in a large class from our State University. A noted educator of this coast asks and answers in the affirmative, "Ought not a normal-school diploma to be accepted as *prima facie* evidence of fitness to teach?" Without attempting to set up my comparatively inexperienced judgment in opposition to his, personal observation would yet prompt me to answer, "Not always, and not necessarily." I do not know that its most enthusiastic admirers claim for it that the State Normal School never graduates those who are not thoroughly fitted to teach. It is to be supposed that an occasional husk of chaff comes out mixed with the wheat. If any doubt it, it can be easily proved. For example, I received this summer a

* A paper read before the San Mateo County Teachers' Institute.

brief letter from a young man whom I knew several years ago as a passing acquaintance. He graduated this year from the State Normal School, and shortly afterward I received from him the aforesaid letter, evidently written with care, making application to me to help him to a position. Yet in that brief note of less than a dozen lines were several bad errors in composition, spelling, and grammar. According to many accounts, that young man is not a solitary and single exception from among Normal School graduates. In my opinion, a man should be so well educated that good spelling and the correct use of ordinary language become a second nature to him before he attempts to teach.

Please do not understand me as attempting to underrate the importance of the higher institutions of learning aforementioned. Such an attempt would be folly, and is farthest from my desires. I merely wish to lay especial stress upon the fact that each one must to a great extent be left to work out for himself in the actual experience of the schoolroom the question of whether or not he is fitted to teach. Without relying entirely upon fine-spun theories, he must plunge into the practical sea before him, and there sink or swim. If after an experience of two or three years he cannot develop a love for his chosen profession, perhaps the sooner he leaves it the better, both for him and the profession.

To sum up, then, and answer the question with which this paper started out : it is to be regretted that it cannot be said that the profession advances as a whole, or with that steady, equal tread to which it might attain, if its members lived up to their full privileges. There certainly has been and now is steady advancement in certain parts, but it does not present the organized, well-drilled, unbroken front that it should from the Kindergarten to the University. The time may come when it will. That time will be hastened by teachers' striving to make their schools so pleasant and attractive that their pupils will not wish to stay away ; by relegating the use of the rod only to the extremest and rarest cases of discipline, and by appealing to a higher motive than fear as an incentive to study ; by adopting and reading carefully a course of professional literature that will keep the mind in intimate companionship with the best educators ; by remembering that teachers should be getters as well as givers of good, and ever bearing in mind the old proverb which says, "He who teaches, learns" ; by carefully avoiding the narrowness and self-sufficiency into which all are apt to fall who associate long with children merely, and that in the role of an autocrat. Let all its members remember that the teacher's calling is a jealous one, which to insure us success will tolerate no divided allegiance. If young men, desirous of emulating the examples of eminent ones who have sprung from the ranks of teachers, wish to make this calling a stepping-stone to some one which they consider as higher, let them while they remain in the work pursue it as though it were to be their life work, notwithstanding, and when they have accumulated sufficient from it to follow up their ideal, they need not look back with shame or regret. If young women, as has pithily been said, desire to make this calling "a halting place between the high school and matrimony," let them ever be proud to

look back at the work accomplished by them in that transition period. Let all who commence it remember that here, as in other professions, although there may always be a crowd at the base, there is always "room at the top"; and that all professional advancement is due to individual effort. By that means they may learn to love and follow as a life work that which was begun only as a make-shift.

You will pardon me for closing with a quotation. It here seems peculiarly apt and fitting.

"Thou must be true thyself
 If thou the truth wouldst teach;
 Thy soul must overflow, if thou
 Another soul wouldst reach—
 It needs the overflowing heart
 To give the lips full speech.

"Think truly, and thy thought
 Shall the world's famine feed;
 Speak truly, and each word of thine
 Shall be a fruitful seed;
 Live truly, and thy life shall be
 A grand and noble creed."

W. B. TURNER.

Pescadero Grammar School.

HOW TO REDUCE CORPORAL PUNISHMENT TO A MINIMUM.

"There's too much abstract willing, purposing,
 In this poor world. We talk by aggregates,
 And think by systems, and being used to face
 Our evils in statistics are inclined
 To cap them with unreal remedies
 Drawn out in haste on the other side the slate."

CORPORAL punishment statistically considered is a horror, as may be proved by an abstract from a Boston school report, as follows:

"The number of reported corporal punishments dealt out to the boys in the grammar schools during 1879-1880 was 10,983—a number equal to 84½ per cent of the average attendance"; and this is in the conceded center of American civilization! We who diligently labor to reduce the number of corporal punishments to a minimum are shocked when a whole school reaches three dozen during the month. Yet, then the average for a twelve-roomed building is but three per class; and perhaps several of these are given to the same incorrigible offender whose parent appeals to the principal to keep Johnny from the street, and complains of Johnny's behavior at home, vainly begging he may be punished therefor.

Keeping this in mind, we desire to avoid unreal remedies" for the bar-

barism of corporal punishment, which is a necessity belonging to the antagonism between two undeveloped conditions—the child, who is incapable of reasoning; and the authority, unable to will obedience.

Is corporal punishment a necessity? This question has been debated from time immemorial. "Spare the rod and spoil the child," should not be considered an authority, in spite of the profound wisdom attributed to its author and the ages that have indorsed it. The light of the nineteenth century has penetrated deeper into the mind of man, and with its rays an insight of the human soul may be obtained, and its better development aided by psychical study, and a direct psychologic influence effected. Mind, not muscle, should rule in all good government, whether domestic, pedagogic, or national. A good government imperatively demands a wise administration. Hence, to reduce the number of corporal punishments, the best teachers should be secured.

Directly, then, the responsibility rests, first, with the parents and citizens, who should elect a Board of Education not only devoted to the moral, physical, and intellectual development of our children, but capable judges of the best methods to be employed toward furthering this end; second, upon the Board of Education, who shall rise above political and personal influence, and actively seek the best teachers, and enact the best rules for their government; third, upon the teachers themselves. Since the thoughts presented here are calculated to benefit the last-named alone, only the briefest hints will be bestowed upon the others.

First. If political selection is not "the survival of the fittest," then an appointing power should provide and pay a competent Board of Education.

Second. The Board of Education ought to thoroughly investigate each school, determine by personal observation the kind of government exercised, and co-operate with the teachers who generally detest the use of the ratan, but otherwise do not know how to correct the unruly, enforce prompt obedience, and preserve the necessary order.

It would be well for the board to have official blanks printed for the use of principals, requiring the parents of the persistently disobedient, unless prevented by illness, to confer with the principal at the school office, under penalty of the child's suspension. Parents often need instruction as well as pupils; and if the principal's hour for receiving visitors were changed from the morning, when the school-work is the most important, and they were allowed the whole afternoon, if necessary, in which to receive and advise with parents, a better understanding would be established, and arrangements made with them to avoid corporal punishment. A child might be deprived of some favorite home pleasure, and thus be made to realize the importance of good behavior more fully than by a mere school chastisement. The board should also provide a piano for each school, as an aid to the proper instruction in music, and a most delightful addition to school life.

Third. Teachers should devote more attention to the study of human nature. Unless the instrument is thoroughly understood and loved, the musician cannot express that subtle harmony of sound which thrills the heart of the listener.

So body, mind, and soul, the trinity of human nature, must be separately studied, and their harmonious relation evolved by a wise education of each in relation to the entire life and temperament. In nature's own order, the physical health should first be guarded and established as far as possible. The teacher should cultivate a parent's watchful care over each member of the class, and carefully instruct even the youngest pupil regarding the laws of health.

A sick child is apt to be cross and irritable, and the unobservant instructor may mistake such a condition for impertinence, inflicting a punishment that will surely aggravate the disease.

Relieve mental labor by songs, marching, and various graceful physical exercises.

Teachers are apt to practice but one form of calisthenics which, lacking novelty, becomes a spiritless and pointless labor instead of recreation. Unless attractive in itself, human nature instinctively asks, "What is the use?" The poor man who would no longer swing the ax because forbidden to use the sharp edge upon the log, although paid as much for his work, quit because he "wanted to see the chips fly." Human nature always wants to see the chips fly—to mark progress, and cause for progress.

Therefore a simple lesson in the laws of health presented before and relative to an exercise in calisthenics, or a brief lesson upon the different muscles, joints, and parts of the body, will be a positive assistance, and add variety and interest.

Above all things, avoid monotony, which will be sure to induce fatigue and disgust.

Teach the pupils in marching to cultivate a graceful carriage. In this, as in all they are taught, show that they are working for themselves, not for the teacher; and that you are interested in their improvement because you love them. Love is the soul's great alchemist. From this wonderful solvent comes all that is gracious and good in the human character. Love is the sweet motor of all moral education and development, and the moral education must outrank the intellectual, if we would reduce the number of corporal punishments, and above all, create worthy and law-abiding citizens. Our ethical faculties are strengthened by using them wisely, and evil passions increase with indulgence. It is our duty, then, as teachers to stimulate a desire to do right by attractively presenting each virtue, illustrating it by an interesting story, or by a judicious use of some incident occurring in the school or home life.

Require pupils frequently to examine their own conduct, and report in what manner they have tried to be kind to others, or to confess where they have not behaved as politely, generously, or obediently as they might have done. Especially when guilty of some marked offense, require them to state the cause, either orally or in writing, and give their own opinion about it. Endeavor to make them comprehend the natural result of wrong-doing and persistence therein.

Ask the pupils to relate some favor or act of politeness received from a

classmate. If none has been accorded, suggest that they may have been undeserving. They are thus helped to see themselves as others see them, a great assistance in self-government.

Self-government is the prime necessity and only salvation for our country. Unless we would lose our freedom, and sink into national corruption, both private and public sentiment must demand a high, unselfish, moral standard. Otherwise freedom is apt to become license, and obedience to be considered a weakness.

At Lassell Seminary for girls, established at Auburndale, Mass., it is said that the self-governing system has been most successfully practiced. When, at the end of the term, a student is found worthy, she is put on the list of "self-governed," and then has the privilege of doing as she pleases, as long as she prove capable of acting with honor and judgment.

The Illinois State University in 1870 introduced the principle of self-government, and Prof. Buchanan, to whom I am indebted for this and other statistics, says: "This system has been sustained by the sentiments of the students, and has been in successful operation more than ten years." The Professor further says: "No system of rigid restraint and suppression by authority can teach men proper self-government. German youth are kept under a rigor of parental authority at home which would astonish American boys; yet, when at college, their drinking, fighting, and other habits show that forced repression does not permanently repress. In true moral education the idea of government almost entirely disappears. Teacher and student are united in the desire to do right, and therefore there is no conflict of self-will and authority. The desire to do right is a desire to do as older and wiser minds suggest, and obedience is a positive pleasure."

The Rev. Calvin E. Stowe, in his account of the power of moral education at Rauhen Haus, near Hamburg, says: "The children received in this institution are often of the worst and most hopeless character. Not only are their minds most thoroughly depraved, but their very senses and bodily organizations seem to partake of the viciousness and degradation of their hearts. Their appetites are so perverted that sometimes the most loathsome and disgusting substances are preferred to wholesome food. The superintendent, Mr. Wichern, states that though plentifully supplied with provisions, yet, when first received, some of them will steal and eat rancid grease that has been laid aside for the purpose of greasing shoes, and even catch May-bugs and devour them; and it is with the utmost difficulty that these disgusting habits are broken up."

Horace Mann says of this institution, "The effect attested the almost omnipotent power of generosity and affection." It is said that these very children at the great Hamburg fire behaved like heroes. They "refused any compensation, and after the fire gave up their provisions and their beds to the sufferers." When Mr. Mann asked Mr. Wichern how he accomplished such wonders, he simply replied that it was "by active occupation, music, and Christian love."

The reformatory farm school at Red Hill, in Surrey County, England; the

one at Mettray, in France ; the State Reform School near Lancaster, Ohio ; the Michigan State Reform School—all report in favor of the moral system of government.

In each, the rule is “active occupation, music, and affectionate consideration,” and corporal punishment is not used. The superintendent of the New York city public schools, after corporal punishment was abolished, reported : “There are fewer dismissals from schools for misbehavior. Kindness, as a rule, has greater influence in securing discipline and respect than physical force.”

If we, as teachers, govern ourselves, this is true. Kindness, however, must spring from real love, and not from weakness. If we lose self-control when tired and vexed at some childish disobedience, the child instinctively exults in its sense of power, and proceeds to more active and willful defiance. There is a sense of justice in every child, which if outraged will produce rebellion ; but if appealed to in real consideration, will respond after the same fashion. Even dumb animals are better trained in the same spirit. Love begets love. Pestalozzi said of his great work, “All this was done by love, which possesses divine power.”

Any punishment, whether physical or mental, that weakens a child's self-respect and will power, is a direct injury, preventing the formation of a self-judging and independent character. To break a child's spirit is a greater barbarism than to break its bones. Some ignorant teachers cruelly punish until force of pain causes the child to cry out. Far better to cultivate endurance by praising the child's self-control, and stop the blows in admiration thereof.

We profess to be Christians, yet how many, either parents or instructors, strictly obey the great Teacher's command in its inner sense : “Suffer little children to come unto me, and forbid them not, for of such is the kingdom of heaven.” Or who remembers the warning : “Whosoever shall offend one of these little ones, it were better a millstone were hung about his neck, and he cast into the sea.”

Shall we allow those we egotistically denominate “heathen,” to spiritually surpass us ?

In Harper's Magazine for 1872, Mr. E. H. House says : “I think that one of the most remarkable characteristics of the Japanese, is the tender indulgence lavished by them upon their children, and the reciprocal respect and devotion which they receive. There seems to be no system, as we understand it or profess to understand it, among them. With all classes, high and low alike, the treatment of the young is almost extravagantly affectionate and considerate. I do not remember ever to have seen a child punished with violence in this country.”

Later travelers report the same fact.

Might we not do well to emulate them in this ?

As teachers, let us remember that “A soft answer turneth away wrath.” Let us avoid harsh words and loud tones, but in a voice of tenderness express love, courage, and honor. Let us lay our hands upon the wayward child in

regretful love, and with a desire to improve him, rather than to assert our own authority. If quarrelsome, isolate him until he is willing to behave like a gentleman. If disorderly, quietly remind him that he is wasting time and annoying his classmates. If that is not sufficient, let him sit apart from his fellows, or send him home to report to his parents, and bring them to settle with the teacher. Briefly, endeavor to remove the cause of any disturbing element, instead of trying by violence to overcome it. Allay passion and all evil by giving it nothing to feed upon. Stimulate virtue by its own exercise. American children are too often rude, mistaking such a manner for an assertion of independence. They are deficient in polish, and inclined to sneer at those better behaved than themselves. Hence, toward all, but especially toward them, our manner should express the most unselfish devotion, which is the foundation for all true politeness.

Noble thoughts and acts should be presented as models, and every adjunct of a refining character sought. Beautiful pictures, dramatic incidents, and music foster the sweeter emotions, and give a controlling power to the better nature of the child. The songs of the school should be a delight. The sweetest melodies should be wedded to words within a child's comprehension, words expressing the love of family, of school, of country, and of God.

Better entirely discard the science of music than to make it a burden ; than to shatter the divine sense that carries the soul on waves of melody upward toward its parent source.

Pestalozzi says : "The exquisite harmony of superior performance, the studied elegance of the execution, may give satisfaction to a connoisseur ; but it is the simple music which speaks to the heart." A German author has said "that human hearts can lead the mind to the utmost possibilities within the scope of human power." If, then, as teachers, we secure the hearts of our pupils, the mind may be led, and the will guided, without the use of corporal punishment.

AURELIA GRIFFITH.

Principal Union Primary School.

EDITORIAL DEPARTMENT.

OBSTACLES TO EDUCATIONAL PROGRESS.

AN enumeration of the chief obstacles to the progress of our schools may lead to a discussion of how to overcome them. At least, it may be well to state from an educational standpoint, why our schools are no better.

The obstacles are:

1. Lack of intelligent and efficient supervision.
2. Partisanship in school management, i. e., interference in school matters, by the political "bosses," and division of teacherships and school offices among political favorites, as parts of the victors' "spoils."

3. Selection of ignorant and often dishonest men as superintendents and school directors.

4. Strictures of the daily press, based almost universally on ignorance of what the schools are doing and what they are for.

5. Destruction of the beginnings of a profession of teaching, and the substitution therefor of a scramble for teachers' certificates by anybody and everybody.

6. But by no means least, the indifference of teachers themselves.

These are but a few of the educational *impedimenta*. When we view them, is it strange that the future seems dark? The administration of Superintendent Campbell for a moment threw a flood of light on the scene. There was a glow of sympathy; a warm clasping of hands, disregarding county boundaries, or even State lines; educators felt that they had a friend at court who had been in their positions, who had had trials like theirs, and knew the school and the home as they knew it.

They felt there was some one to help them smooth over the rough places; to appeal to the higher law of common sense and justice and humanity, when the more narrow, the written pages ruled against them.

PEDAGOGY IN NEVADA.

THE following stirring editorial from the *Daily Index* of Carson City, Nevada, is submitted to those newspapers in California which so constantly attack the public schools on the ground of their expensiveness.

"By reference to the local columns the salaries of the leading Nevada teachers can be ascertained. The highest salary paid to any of this profession in our State is to Prof. H. H. Howe.

"Nevada has a world-wide reputation for paying teachers high salaries. In so far as it applies to the males, this is not true. Thoroughly to educate one's self, to know text-books and methods of instruction, requires many years of labor and no small amount of capital. In scarcely any other occupation is there such a continuous and fatal strain on the nervous system as in that of teaching. In no other business is there a more gloomy prospect for amassing a fortune, or even of acquiring a competence for old age. Hence, the most worthy of the profession follow in the treadmill of pedagogy but for a few years, and then engage in something less itinerant and more lucrative.

"No matter what the business, first-class salaries always attract first-class talent. Four dollars per day for the wages of the miners is the first, last, and only explanation of the proverbial intelligence of the mining classes of Nevada. Districts that have poor schools will find the explanation of their misfortune by consulting the stingy spirit that directs the school management. Truthfully, it cannot be denied that now and for years past principalships of schools in Nevada go begging. This year it has been found necessary to send away for male teachers, three for Reno, two for Austin, one for Eureka, one for Ruby Hill, one for Battle Mountain, one for Paradise Valley, and possibly a score more for smaller places. Without an educated and skilled head intelligently to devise and to carry out any system, that system must soon be brought into disrepute. Let supervising principals of schools be paid salaries commensurate with the importance of the position and the value of their services to the community, and the evil of poor schools, the scourge that at some time visits the innocent of every household, will soon be eradicated from our school system."

EDITORIAL PARAGRAPHS.

SOME of the regents of the State University are never happy unless posing before the public in the role of reformers. It is said, on apparently good authority, that these gentlemen are anxious to remove the present efficient head of the University, Professor W. T. Reid.

It is a fact, that since President Reid has assumed charge, the University has displayed unmistakable evidences of vitality. Signs that a good college exists have penetrated to even remote districts of the State. The schoolmaster, ably represented by President Reid, has gone abroad. The people have seen him, heard him, and made a tolerably close and decidedly favorable estimate of what the University is likely to do under his leadership.

But the obstreperous regents have itchings for office. They are politicians, partisans—the bitterest of the bitter—and they cannot forgive the President for being a native of Massachusetts. They invoked the specter of the “bloody shirt” when Professor Reid was elected, and they will not suffer that specter to be laid until the presidency of the State University is added to the spoils of the dominant faction.

WE sometimes doubt if the cry for reform be not a mistaken appeal—uttered under a wrong conception of a real need. It strikes us that the schools or politics do not need reform, as much as *form*. We have not reached the bearing down and reconstruction period yet. This is still a formative era, whether in government, or society, or education. In the latter, we are evolving amid much turmoil and confusion, despite obstruction and opposition, a system that shall be in harmony with a high civilization.

History is the revelation of what is potentially in each man. He looks, at himself through the eyes of mankind, and sees himself in mankind. The man of culture recognizes his identity with the vast complex of civilization with the long travail of human history.—*Harris*.

It should never be forgotten that every grade of mental development demands a literature of its own: a little above its level, that it may be lifted to a higher grade, but not too much above it, so that it requires too long a stride—a stairway, not a steep wall to climb.—*Holmes's "After-Breakfast Talk."*

Real teaching eliminates the bad boys and girls—they are all good. Under such teaching, goodness takes the place of vice—all good teaching develops moral character. On the other hand, all bad teaching has an element of immorality in it. It unfits for work; and idleness means vice.—*F. W. Parker*.

At the summit of thought the conclusions of the philosopher harmonize with the inspirations of the poet.—*Schuyler*.

It is an injury to the mind of a child to have a word on its lips whose meaning is not beforehand in its mind or heart.—*Agassiz*.

SCIENCE RECORD.

THIS RECORD is under the editorial charge of Prof. J. B. MCCHESENEY, to whom all communications in reference thereto must be addressed.

THE laws of acoustics are so imperfectly understood that, in building a public hall it is largely a matter of luck whether audiences will be able to hear well in it. Horticultural Hall, Philadelphia, was so defective in this regard that the owner decided to try the effect of certain alterations, and if they failed, tear the building down. A test concert, however proved that a remedy had been found.

LUMINOSITY OF THE MAGNETIC FIELD.—Professor W. F. Barrett, of Dublin, has been making some interesting experiments to test the correctness of the discovery claimed to have been made by the late Baron von Reichenbach, viz., that a peculiar luminous effect, resembling a faint electric discharge in rarefied air, emanated from the poles of a magnet, and was rendered visible in a perfectly darkened room. These new experiments confirm those of Reichenbach.

THE common practice of having night lights in the bedrooms of children of well-to-do parents is deprecated by Dr. Robert H. Bakewell. He says that it has a most injurious effect upon the nervous system of young children. "Instead of the perfect rest the optic nerves ought to have, and which nature provides for by the darkness of the night, these nerves are perpetually stimulated, and, of course, the brain and the rest of the nervous system suffer. Children thus brought up are excessively timid for years after on going into the dark."

SOLAR SYSTEMS OTHER THAN OUR OWN.—We know of a great number of stars which are accompanied by smaller stars moving around them like the earth around the sun. These systems, which are now numbered by hundreds, have been so carefully observed, that we have been enabled to calculate the orbits and periods of the planets, brilliant or opaque, which compose them. It is, then, no longer on mere hypothesis that we can speak of solar systems other than our own, but with certainty, since we already know a great number, of every order and of every nature. Single stars should be considered as suns analogous to our own, surrounded by planetary worlds. Double stars, of which the second star is quite small, should be placed in the same class, for this second star may be an opaque planet reflecting only on the light of the large one, or a planet still giving out heat and light. Double stars, of which the two components give the same brightness, are combinations of two suns, around each of which may gravitate planets invisible from this distance; these are worlds absolutely different from those of our system, for *they are lighted up by two suns*—sometimes simultaneous, sometimes successive—of different magnitude, according to the distances of these planets from each of them; and they have double years, of which the winter is warmed by a supplementary sun; and double days, of which the nights are illuminated, not only by moons of different colors, but also by a new sun—a sun of night! Those brilliant points which sparkle in the midnight sky, and which have, during so many ages, remained as mysteries in the imagination of our fathers, are therefore *veritable suns*, immense and mighty, governing, in the parts of space lighted by their splendor, systems different from that of which we form a part. The sky is no longer a gloomy desert; its ancient solitudes have become regions peopled like those of which the earth is located; obscurity, silence, death, which reigned in these far-off distances, have given place to light, to motion, to life; thousands and millions of suns pour in vast waves into space the energy, the heat and the diverse undulations which emanate from their fires. All these movements follow each other, interfere, contend or harmonize, in the maintenance and incessant development of universal life.—*Popular Science Monthly*.

THE PUPILS' CORNER.

THIS department, which will consist of new, and in many cases original, declamations, poems, dialogues, music, and games, suitable for Friday afternoon exercises, will be under the editorial charge of CHARLES M. DRAKE. Teachers who have matter for the department, or suggestions in regard to it, are solicited to send communications to his address at Santa Paula, Ventura Co., Cal.

TALKS WITH MY BOYS.

Now, isn't that nice! The editor says if I may take a class of boys (meaning you), and teach them; while the wiser folks are instructing the teachers in the other departments, I may have two or three pages in which to do and say about what I please. Don't you like to do as you please, and say what you please? I do. I know the parents and the teachers bother a body, and never remember when they were young; so I am going to help you out, and you and I will double teams against some of these teachers. It's real easy to get the better of some of them, and if you will only read carefully what I say, and do as I say, you can make them open their eyes.

Your teacher, or your father, or some well-meaning neighbor, sometimes asks you solemnly, "Boy, what do you go to school for"? And you say, "To study and learn, sir"; but it isn't so, is it? If you told the honest truth, wouldn't you say, "To have fun, sir"?

So, as that is the most important part of your school—and it ought to be if it is the right sort of fun—I am going to talk to you about your fun, and tell you a little of what I think is fun, and what is not fun.

In all games and at all times it is not fun *to cheat*. Now, is it? Don't you enjoy the the game more if every one plays fair? I know you do. Then there is another thing. The rules of the game should always be clearly understood before the game begins. That saves lots of quarreling and bad feeling. Now, as I know you get tired of playing the same kinds of games, and want something new, I will tell you how *we* play *base*.

RULE I. Don't cheat. Play fair.

RULE II. Keep good-natured. Talk and act pleasantly.

RULE III. Don't insist on having your way and on your judgment about whether you or some one else is caught. Be ready to give way to others pleasantly.

RULE IV. Be careful of your playmates' clothes and feelings.

Now those are four good rules for almost any game, and if they are strictly followed you will enjoy the fun ever so much more. Now for the special rules of "One Man to a Base":

I. Each player shall have a base at least three long steps from any other base, consisting of a block of wood or anything that can be plainly seen across the ground. It must be at least three steps from any building or fence, so a player can run around it.

II. By touching him so that he feels it, any player can catch another

player that left his base after the first one did, and he can take the captive home to help him on his base, provided that the one who left the base first has not been caught since he left his base, or has not caught some one else.

III. If a player goes three times around a base with but one player on, without returning to his own base or getting caught, the one on the base is captured.

IV. The game ends when all the players are upon two bases, and that base beats which then contains the most men. But if the owner of the base has once been caught he cannot claim his base beats, but the game becomes a draw.

V. You cannot catch a player who is on your own base.

Now, after you all understand those rules well, and have played the game a few times, I know you will like the game. In the beginning of the game one bold player leaves his base and gives a *dare*. Out starts another after him, and then a third starts to catch either of the other two. The first player gets back to his base (if he can), and having touched it, goes out to catch any of the others.

Now let me tell you where *mean* players try to cheat. As you must touch one you capture so he feels it (don't hit *too* hard), the mean ones will sometimes say they didn't feel it when they did. The best remedy for such a one is to hit pretty hard the next time, and ask him if he feels *that*; but be good-humored about it, for

VI. If you think you really hit a person, you have a right to return to your base without being caught. But the most of the mean ones try to cheat in this way. Under Rule II., one who has caught a prisoner, or has been caught, cannot be caught again until he has touched the base he belongs on. Now it is all right for such ones to coax other heedless players out, so that they may be caught, but it is not fair to claim you have not touched your base when you have and are caught. And if you say you have touched your base when you have not, you can then be caught the same as if you had touched it.

VII. If there is a dispute as to which left the base last, both must return to their own bases. This will save disputes.

Did you ever think what makes a good school-game?

FIRST. There must be plenty of chance to exercise, but one must not be forced to run when he does not wish to.

SECOND. The rules must be few and simple.

THIRD. There must be plenty of chance to show skill and have a friendly strife.

FOURTH. It must be a game in which all can join, and the youngest and weakest have a fair show. I think you will say that the above game is good in all four of these ways; but remember, you will seldom like a new game until you have played it a few times and become familiar with it.

Now let us change the subject, and talk a little while about

ARITHMETIC.

Pshaw! there is no fun in arithmetic, some lazy grumbler says. Yes, there is, if you go at it right. We will talk about the most important part of arithmetic,

and that is addition. Do you know there are very few teachers who can add rapidly and correctly? This is really so, and now I want to tell you how to become expert in addition. Practice a great deal and do it in the right way, and I'll warrant you that you will be able to add more rapidly than most teachers in six months. Here are two examples:

4	6	3	8	5
6	4	7	2	5
5	9	1	7	2
5	1	9	3	8
7	5	3	6	4

3	5	2	7	4
6	4	7	2	5
2	8	5	9	3
7	1	4	0	6
6	5	7	3	8

Now when you begin to add the first line, you should not say 4 and 8 are 12, and 12 and 2 are 14, and 14 and 5 are 19, and 19 and 5 are 24, and put the 4 down under the line and the 2 in some place to one side. You should simply say 12, 14, 19, 24. Put the 4 where it belongs, and if you put the 2 down at all, it belongs under the 6. Make it *small* and *right on the line*.

Many teachers will not permit you to put the 2 down at all, but I think they are wrong. Every line should be proved by re-adding, and indeed, all work should be done over twice, so that you may be sure you are right. In going over the work a second time you can see your small figures help to assure you that you are correct; and if some one else reviews your work, it helps him to see all your figures. I believe all long columns should have the whole result below.

Let us look again at those examples, for they are a little curious. In the former example, do you notice that the first two lines contain corresponding figures, as do the third and fourth lines? Where there is an 8 in one line, there is a 2 in the other to make a ten; and where there is a 7, the other line has a 3, and a 6 to a 4, and so on. Now you can rapidly put down the answer by writing the first figure of the fifth line as it is, and then add 2 to each of the other figures and put a 2 on the left. It would be like this:

	7	5	3	6	4
2	2	2	2	2	
<hr/>					
2	9	7	5	8	4

Can you not see that you could fill a slate full of figures in this way, and with a little practice you could write the answer down as fast as you could make the figures? If you had seven lines you would have to add 3's instead of 2's. The latter example, where the lines add up to 9's, is even easier. For the answer, take two from the first figure of the odd line, and put down the other figures as they are with a 2 before them. When you want to show off how fast you can add, you must put the corresponding lines apart from each other and let the odd line be near the middle, so you will not be found out. You can even let other folks give out three of the lines, and then, saying they are too slow, rapidly put down two lines corresponding to two of theirs, and then write the answer down from the other line. If they ask you how you do it, you can truthfully say you

added it up as you put it down. Such examples are often put down by teachers for pupils to practice on, as the teacher can tell at a glance whether the answer is right or not.

I remember, when I went to school, I could not see how my teacher added so much faster than I could, so I studied the examples and found them out. The next day I could add as fast as he could, but I didn't tell the other boys how it was I had grown so smart so quickly. Now it will really help you in adding to learn to make such examples quickly, and you can have lots of fun with them too.

Next month I want to help you study some of your lessons, and tell you, it may be, some easier and better way of learning them, and then you will have more time to play, and if you are the right kind of boys, you will enjoy your plays more if your lessons are well learned.

UNCLE CHARLEY.

NOBODY'S CHILD.

ONLY a newsboy, under the light
Of the lamp-post plying his trade in the
rain.

Men are too busy to stop to-night,
Hurrying home through the sleet and rain.
Never since dark a paper sold ;
Where shall he sleep or how be fed ?
He thinks as he shivers there in the cold,
While happy children are safe abed.

Is it strange if he turns about
With angry words, then comes to blows,
When his little neighbor, just sold out,
Tossing his pennies, past him goes ?
"Stop!"—some one looks at him, sweet
and mild,
And the voice that speaks is a tender one :
"You should not strike such a little child,
And you should not use such words, my
son !"

Is it his anger or his fears
That have hushed his voice and stopped
his arm ?
"Don't tremble," these are the words he
hears ;
"Do you think that I would do you harm ?"
"It isn't that," and the hand drops down ;
"I wouldn't care for kicks and blows ;
But nobody ever called me son,
Because I'm nobody's child, I s'pose."

O men ! as ye careless pass along,
Remember the love that has cared for you
And blush for the awful shame and wrong
Of a world where such a thing could be
true !
Think what the child at your knee had been
If thus on life's lonely billows tossed ;
And who shall bear the weight of the sin,
If one of these "little ones" be lost ?

—Phebe Carey.

TAKE care to be an economist in prosperity, there is no fear of your being one in adversity.

THE best portion of a good man's life is his little, nameless, unremembered acts of kindness and of love.

A COWARD boasting of his courage may deceive strangers, but he is a laughing-stock to those who know him.

THE secret of success is to know how to deny yourself.

SELECTED MISCELLANY.

BACTERIA.—Bacteria have their name from their rodlike shape. They are vegetation so minute as to be visible only by the aid of powerful microscopes. They multiply by division, each rod separating into two parts. Then each part speedily becomes a complete whole, but soon divides into two parts.

It will be seen what countless numbers must result. The view has been extensively adopted that these microscopic vegetations are the actual poison that produces most infectious diseases. Prof. Lionel Beale, F. R. S., knighted for his attainments in microscopy and medicine, is not prepared to accept this. We present a condensed statement of his views.

The tongue is constantly covered by whole forests of bacteria. Millions pass into the stomach whenever we swallow. It is the same with all animals. Every vegetable and fruit and leaf also contains countless numbers. So does the air we breathe and the water we drink. All disintegration and decay facilitate the growth of this minute vegetation.

It is certain now, that bacteria in large quantities are constantly passing into the alimentary canal of men and animals without doing harm. There is probably not a part of the body of any one of us, one-quarter of an inch in diameter, where their germs are not present. So small are they that they pass freely into the substance of every organ. They exist within us, even in the blood, without disturbing us in any way.

In disease their numbers are vastly increased. "I have seen every part of the stomach, the small and large intestines, filled with curdled milk which, when placed under the microscope, seemed to be almost composed of bacteria. But this probably did not originate the disorder, but resulted from the prior diseased state of the secretions. It is still an open question whether infectious diseases originate from some *special kind of death-carrying* bacteria, or from particles wholly independent of all such organisms. Though some evidence has been adduced in favor of the first hypothesis, many new facts must be discovered before the problem is solved."

MEMORY UNDER EXCITEMENT.—Excitement frequently produces curious effects upon the memory. Thus a cornship, during a heavy gale, hoisted a signal of distress, and the officers and crew with much difficulty were rescued by a craft which came to their relief. In a law-suit to recover the insurance, all who had been on board testified that the vessel was breaking up when they abandoned her, and that they observed the corn being washed out between the disjointed planks. After a verdict against the insurance company, the vessel was boarded and brought into port, with both vessel and cargo in a perfectly sound condition. Undoubtedly, the testimony had been honestly given.

In Boston, while the Chickering Piano establishment on Washington street was being destroyed by fire, some years ago, a lady who was boarding in the Adams House, opposite, with her three children, became greatly alarmed.

She clung frantically to her offspring, and wrung her hands in agony for the safety of the fourth. Her fellow-boarders, having never observed but the three, inquired whether the missing one was a boy or girl. With very great embarrassment she acknowledged that she could not tell.

So also excitement prevents some people from calling to mind things that appertain to their daily routine of duty. Thus, when a certain cotton-mill in Massachusetts was on fire, the man who had had charge of the fire apparatus for fifteen years, and had continuously inspected and operated the appliances, was so greatly excited by the responsibility of his position that he could not call to mind where the hydrants and valves were located.

A young sportsman who had chased only small game went on a deer-hunt. He was so astonished and excited to have a fine buck bounce by him at easy range, that he pointed his well-loaded rifle towards the deer and cried out "Bung!" like a child.

No more amusing stories are told than those where the memory in relating them fails in giving the point. One of the last of these is one of the best. A man in a street-car was pitched headforemost into a lady's lap, and being called "a perfect Indian," admitted that he was a paw-knee or a lap-lander. The relator, in describing it as the best pun he had ever heard, declared that he acknowledged that he was a *Cherokee*.—*Youth's Companion*.

EXAMINATION QUESTIONS.

ENGLISH LITERATURE.

We reprint the following questions from the *Ohio Educational Monthly*. They will be found an excellent test for pupils in our high schools and advanced grades. [ED. JOURNAL]

[Questions used in the examination of classes in the Akron High-school.]

1. What is meant by English Literature? What does it ordinarily include?

2. As to the matter, or the essential nature of literary productions, into what three classes divided? What is the purpose of each?

3. Define style, and name three principal things included?

4. State the difference between simile and metaphor, and give an example of each.

5. Name three principal qualities of style, and define each.

6. In what does simplicity of style consist?

7. Give the rhetorical classification of sentences, and define each class, giving examples.

8. Why is the English called a composite language? Give its principal sources and the part derived from each.

9. John Bunyan—15 lines.

10. Bacon or Franklin—15 lines.

1. Lowell's principal works. Where is he now?

2. What was the Holy Grail?

3. What allusion in

"Not only around our infancy,
Doth Heaven with all its splendor lie?"

4. "We Sinais climb and know it not." What does the poet mean? Why *Sinai* any more than *Andes*?

5. "At the Devil's birth are all things sold." What word should be specially emphasized? Show how the meaning would be changed by a different emphasis.

6. "The crows flopped over by twos and threes." More or less forcible than "flew over," etc.? Why?

7. Define crypt, arabesques, seneschal, corbel, greswome.

8. "He sings to the wide world and she
to her nest—
In the nice ear of nature which song
is the best?"
- Is there anything meant in this couplet more
than a comparison between the songs of
the two birds? Is so, what?
9. Was the quest of Sir Launfal success-
ful? If so, how?
10. Your favorite passage from "Sir
Launfal?" Reason for your preference.
11. Sketch of Byron.
12. Who was the real "Prisoner of Chil-
lon?"
13. Where is the Castle of Chillon?
14. "Creeping o'er the floor so damp,
Like a marsh's meteor lamp."
What figure? Explain.
- 15 and 16. Sketch the character of the
two brothers of the prisoner.
17. By what means was the prisoner de-
livered from his death-like torpor?
18. How do you explain the philosophy
of it?
19. Why did the prisoner regain his free-
dom with a sigh? What do you think of
the evils resulting from leading a solitary
life?
20. Define banned, tenets, moat, hermi-
tage, fathom-line.

EDUCATIONAL INTELLIGENCE.

SAN FRANCISCO.—A new twelve-class building, the Hastings Primary, has just been completed, at a cost of about \$27,000.

W. W. Stone has been promoted from the Washington Grammar School to the vice-principalship of the Franklin Grammar. Mr. Stone is a teacher bright and successful, a good disciplinarian, and has well earned this promotion.

Dr. Lee O. Rodgers, one of the leading members of the School Board, has resigned from that body. This is a great loss to the Department as Dr. Rodgers is a gentleman possessing the highest qualities requisite for the responsible position of School Director. A man of sterling honesty, of cultivated mind, and with considerable experience in school affairs, his absence from the Board will surely be felt.

This department loses one of its ablest teachers and the city a worthy citizen, by the death, at the early age of 45, of Jacques London, vice-principal of the South Cosmopolitan Grammar School. In all the varied relations of life, in his family, as teacher and citizen, as member of the City Board of Examiners, Mr. London was distinguished for the conscientiousness with which he performed every task.

Of a singularly winning disposition, he made friends on all sides, though a man of firm character and unswerving principles. The deep sympathy of the Department and the community is with his afflicted family in this trial.

His memory will long be cherished, not only in his own home, but among his associates and his pupils, and wherever his influence extended.

The industrial exhibition of the Mechanics' Institute, which opens in the Mechanics' Pavilion in this city on the 11th of September, promises to be one of the finest displays ever held in this city. At all events, these fairs are always well attended, and are looked forward to with anticipations of enjoyment by young and old.

LOS ANGELES COUNTY. — Prof. L. D. Smith, principal of the Los Angeles High School, has been elected city superintendent in place of Prof. Guinn.

Supt. John W. Hinton has finally gone and done the thing needed to make a complete man of himself—taken a better half. The lady, one of the brightest and most successful teachers in his county, will be a loss to the profession and a corresponding gain to the domestic circle.

SOME QUERIES.*

STUDIES IN LITERATURE.

1. Name author and selection :
 "Hew to the line, let the chips fall where they may."
2. Who wrote :
 "There is a tide in the affairs of men
 Which, taken at the flood, leads on to fortune"?
3. Name the author :
 (a) "Coming events cast their shadows before."
 (b) "'Tis distance lends enchantment to the view."
4. Who is the author of the following selection of poetry ?
 "Count that day lost whose low descending sun
 Views from thy hand no worthy action done."
5. Please give biographical sketches of the following persons : Agassiz, Angelo, Goethe, Galileo, Choate, Victor Hugo, Horace, Virgil, and Homer.

MATHEMATICS.

6. How much of the vertical height of a conical straw stack 30 feet high and 35 feet in diameter at the base, must be taken by each of five persons in order that each may have an equal part?
7. A gentleman has 2 horses, and a saddle worth \$25. Now, if the saddle be put on the first horse, it will make his value double that of the second; and if the saddle be put upon the second horse, it will make his value triple that of the first. What is the value of each horse?
8. What per cent. in advance of the cost must a merchant mark his goods, so that after allowing 5 per cent. of his sales for bad debts, an average credit of 6 months, and 4 per cent. of the cost of the goods for his expenses, he may make a clear gain of $12\frac{1}{2}$ per cent. on the first cost of the goods money being worth 7 per cent.
9. What is the length of the edge of a conical bin that will hold 100 bushels?

GEOGRAPHY.

10. Why are so few volcanoes found on the borders of the Atlantic, and so many on those of the Pacific?
11. Where is Cat Island?
12. How far north and south of the equator do the moon's rays become vertical, and at what time?
13. In what country are the elections held on Sunday?
14. Where is the Cassiquiare River, and what is there remarkable about it?
15. What is the highest point of land east of the Mississippi River?
16. In what general direction do most of the large rivers of the globe flow?

HISTORY.

17. Who was the author, in language and general arrangement, of the Constitution of the United States?
18. How many expeditions have been made into Canada?
19. Who was the great Marquis?
20. What was the Alien Act?

GRAMMAR.

21. Considering from what family he descended. Parse *what*.
22. (a) I am present; (b) I am glad. Parse present and glad.
23. Analyze and parse "*side by side*" in the sentence: "Foreigners and natives sat side by side."
24. What would be proper for the sign of a seller of law books? Is "J. Price, Law Book Seller," correct?

MISCELLANEOUS.

25. Please give the name of the European rulers?
26. How did the expression, "in a brown study," originate?
27. How many members in the House of Representatives?
28. We call Latin and Greek "dead languages"; when did they die?
29. Who appoints the chaplain of the House of Representatives?

* We are indebted for these questions to an excellent publication, *The Teacher's Companion*, published by C. W. Hagar, 697 Broadway, New York.

NEWS RECORD.

Foreign and Domestic.

Judge Jeremiah Black died at his home near York, Pa., on Aug. 19. He had suffered greatly during his last illness, but died in peace, breathing a prayer. Judge Black was born in Glades, Pa., January 10, 1810; was admitted to the bar in 1831; he was elected to the Supreme Court of Pennsylvania, and became Chief Justice, serving two years, and then entering Buchanan's Cabinet as Attorney-General. In 1860 he took the position of Secretary of State, resigned by Gen. Cass. From 1862 to 1864 he was Reporter of the U. S. Supreme Court.

During July and August, cholera assumed an epidemic form in Egypt, the daily deaths numbering thousands. The usual pilgrimage to Mecca has been prohibited. It is estimated that over thirty thousand deaths have already occurred from the disease.

On August 13th sharp shocks of earthquake were felt in San Salvador. The Ometempe volcano in Nicaragua continued in eruption, and all the inhabitants of the town of that name have emigrated to the mainland. A strong shock was felt at Lima, Peru, and several shocks were experienced in Los Andes, Chili.

On Aug. 14 a new planet was discovered by Prof. C. H. F. Peters, of Clinton., N. Y. Its position at the time of its discovery was right ascension, 21 hours, 28 minutes and 48.17 seconds; declination south 12 degrees 29 minutes and 8 2 seconds. It is of the ninth magnitude.

Official dispatches to London from the Governor of Natal state that he is informed that King Cetewayo, who was reported to have been killed by the Zulu insurgents, is in the reserved territory. A trustworthy witness says he has seen him alive since his reported death.

James Carey, the Irish informer, was shot and killed on the steamer *Melrose en route* for Port Elizabeth. The murder was committed by an Irishman named O'Donnell.

Letters from Naples say that the condition of the volcano has again become an object of serious attention to Professor Palmieri, and of wondering interest to ordinary spectators. Since the 21st of June the activity of the crater has been steadily increasing, the first symptom being the upburst of a column of flame, visible at a great distance. Every night a fiery glow, like a gigantic crown, hovers over the summit, forming in the clear summer night a spectacle of mingled picturesqueness and terror. The result of all this volcanic ac-

tivity has, undoubtedly, been the recent great earthquake at Ischia.

China is called the "Celestial Empire" because the term Tien Chang, that is, "heavenly dynasty," means the kingdom which the dynasty appointed by heaven rules over; but the term Celestials, for the people of that country, is entirely of foreign manufacture, and their language could with difficulty be made to express such a patronymic.

A Turkish author has a hard time of it. First he must have a diploma from a school certifying that he knows how to write correctly, next he must prove that his work is purely original, and finally his book must undergo rigorous examination by the Minister of Public Instruction, who may send the author to jail if he disapproves of the work.

The news seems to be authenticated that Prof. Pumpelly's party has discovered a veritable glacier in the vicinity of the upper Marias Pass, about 150 miles north of Missoula, in Montana. The glacier is about a mile in width and has a height of 500 feet. It is in a region full of wild scenery, precipices, chasms, and cascades.

The idea that fish-eating feeds the brain is scouted by the London surgeon Sir Henry Thompson.

Educational.

One hundred thousand dollars have been given for a boys' and girls' college at Tacoma, Washington Territory, by ex-President Wright, of the Northern Pacific Railroad.

Boston has over thirty free kindergartens for poor children, supported by one charitable lady.

It is said by Cincinnati papers that a school-board quarrel reveals the fact that teachers' places have been privately auctioned by members to the highest bidder, as much as \$300 having been paid for a position.

Geography is taught by Principal Leyford of Worcester, Massachusetts, by means of a solar camera, maps of the various countries, and scenes representing the habits and architecture of the people, being thrown upon the screen.

The Argentine Republic has followed the plan of this country, and established a system of provincial normal schools. The teachers lately chosen in this State (Minnesota) were for positions in these. Their maximum salaries are to be two thousand dollars per year. They have six months in which to learn the Spanish language.—*School Education.*

The era of salary-increase is again upon us Chicago, Cleveland, Baltimore, and many towns and cities in the Northwest have raised the salaries of principals and superintendents. However, the rank and file need salary-increase too.—*School Education*.

The proportion of illiterates is said to be very high in once famous Greece. In Thebes and Arcadia only five per cent of the inhabitants can read and write.

Personal.

Rev. S. F. Smith, D. D., author of "My Country 'tis of Thee," is still living, at the age of seventy-four. As there is a constant demand for his autograph, a friend sends out a card with the hymn printed over Dr. Smith's written signature. The card is sent on receipt of ten cents and a three-cent stamp.

Ex-Governor Perkins of California, since the expiration of his term of office, has resumed active business life in San Francisco; and to lighten its cares, interests himself in many social and other duties. As Grand Commander of the Knights Templar of California, he took an active and leading part in the recent grand conclave in San Francisco, where it fell to his lot to deliver the address of welcome to the Knights visiting California from all parts of the Union. The address was marked with passages glowing with eloquence. The conclusion was as follows: "And, sir, we indulge the hope that when your sojourn among us has ended, and you return to your distant homes, that you will have no cause to regret your journey to this coast, and that you will often kindly think of your fellow-pilgrims encamped where the Pacific sings on a golden lea the sunset song of the nation."

Mr. D. O. Mills, the California millionaire who has lately taken up his residence in New York City, last month presented the State of California with a magnificent piece of statuary representing Columbus at the Court of Queen Isabella. The work of art is nine feet high, cost \$35,000, and will be placed in the rotunda of the State Capitol at Sacramento, at Mr. Mills' expense.

In connection with the fact that Professor Haupt, of Göttingen, just called to Johns Hopkins University, is but thirty, it is stated that Carl Witte, the great Dante scholar, was at fifteen a Ph.D., and at nineteen a *Privat-Dozent*, and Professor E. Sievers, to whom Harvard gave a call, and who has gone to Tübingen, was Professor Ordinarius at twenty-one and acting Rector of the University of Jena at twenty-nine.

The Darwin memorial fund has reached the sum of \$16,500.

W. H. Vanderbilt left \$3,000 at the Glen House, White Mountain, for the college student waiters, giving each \$100.

General.

The Christian Union, in the following extract, waxeth merry over a new scientific achievement. Yet is the incident not incomprehensible?

"The old question which has been hotly disputed for centuries, as to what becomes of the pins, is now in a fair way of being solved by science; Mr. Irving Bishop, the English thought-reader, recently accepted a challenge to give a proof of his attainments with a result which opens a large field for possible effort in the future. A Liverpool gentleman secreted a pin within a radius of five hundred yards of a certain hotel, and Mr. Bishop agreed to discover it. He was put in charge of a clergyman while the challenger went off and located the pin. At the appointed time the gentleman in question was blindfolded, and Mr. Bishop, connected with him by a piece of piano wire which acted as a thought conductor, began to look for the pin. After exploring a number of streets the thought-reader entered the hotel, climbed several pairs of stairs, and found the pin in a window sash of a balcony. There is, of course, a link still missing in the chain that will make pin-finding an exact science; it will be necessary for the pin-finder to make his explorations without the help of another person.

Perhaps this may be done by attaching him to a pin-cushion by a piano wire. The marvels of science are apparently inexhaustible."

The *Cincinnati Lancet* reports the case of a mulatto, not especially noted for intelligence, who recently died in Columbus, O., and whose brain, as certified to by Dr. Haldeman, weighed 68½ oz., or 4¼ lb. more than the brain of Cuvier. The following is a list of the brain weights of several men distinguished for intellectual attainments: Dr. Abercrombie, 63 oz.; Spurzheim, 55 oz.; Sir J. Y. Simpson, 54 oz.; Agassiz, 53.4 oz.; and Dr. Chalmers, 53 oz. There have been several instances of the brain weights of illiterate white men reaching a remarkable figure, but the case above mentioned is especially noticeable as being recorded of a man of negro blood, which race is generally set down as possessing brains lighter by several ounces than the average brain weight of white races.

Dr. Mittendorf, in a recent examination of the pupils of some of the New York schools, found that the proportion of myopia cases varied from about 3 to 17½ per cent. The disorder was found to be more prevalent among Germans than among Americans. At Columbia College, 35 per cent. of the students were near-sighted. From 30 to 40 per cent. of the myopia cases were in children of myopic parents. In all cases the trouble increased with the length of school-life.

BOOK NOTICES.

POPULAR ASTRONOMY. By Simon Newcomb, LL. D., Superintendent American Nautical Almanac, formerly professor of the U. S. Naval Observatory. Fourth edition revised. New York: Harper and Brothers, publishers, 1882. San Francisco: A. L. Bancroft & Co.

According to the author, "the main object of his work is to present the general reading public with a condensed view of the history, methods, and results of astronomical research, especially in those fields which are of most popular and philosophic interest at the present day, couched in such language as to be intelligible without mathematical study."

In Part I. the author considers the subject historically, tracing the growth of the science of astronomy from its inception by the ancients down to the present day. In Part II. are several exceedingly interesting chapters devoted to the construction and practical use of various kinds of telescopes and other instruments used by the working astronomer. In Part III. the author describes in detail the solar system and the various bodies which compose it. To the general reader, the chapter on "The Sun" will be found to contain much that is both new and interesting. Owing to recent discoveries by the aid of the spectroscope, much of our knowledge of this most important body is no longer mere speculation, but rests on a substantial scientific basis. Part IV. discusses the stellar universe, the modern nebular hypothesis, progressive changes in our system, the sources of the sun's heat, and kindred topics. The book closes with an appendix, in which is given a list of the principal great telescopes of the world, a list of the more remarkable double stars, a list of the more remarkable nebulae and star-clusters and periodic comets seen at more than one return.

The style of the author is clear and so simple that the general reader is at once attracted and interested, and what is more to the point, is not led astray, as is too frequently the case when science is diluted for the unscientific. The illustrations are good and aid materially in elucidating the

text. To those who wish to become familiar with the science of astronomy as it is to-day, we cannot suggest a better book for their perusal than this.

BARNES' POPULAR HISTORY OF THE UNITED STATES OF AMERICA. A. S. Barnes & Company, New York, Chicago, and New Orleans. pp. 653.

There is no school book about which experienced teachers disagree more radically than those which treat of the history of our country. We have had them served up in the condensed form, so condensed that all vitality was pressed out of them; in the scrappy form, devoid of continuity and thus of interest; and in the voluminous form, which frightens the young reader by its very dimensions. It would seem that a golden mean should exist, and that some writer should be able to find it. None but a poet should ever aspire to the composition of a history, because none but those who possess the true poetical instincts can ever see in the history of a people those fundamental and vitalizing forces which have their origin and development in the hearts of the people. The Gradgrinds with their bare facts are cold and unsympathetic, and their efforts in historical composition meet with no response from warm-hearted youth. A history compiled on the leading-fact theory may serve the pedagogical taskmaster; and even the unfortunate pupil, whom circumstance compels to tread in his unnatural mill, may flatter himself he has made commendable progress in historical study, but he soon learns to his sorrow that the breath of time quickly scatters the knowledge thus acquired as the dust. No real history can be produced unless the writer constantly feels the heart-throbs of the people; his whole nature must be so delicately hung that it will constantly respond to the varying sympathies and emotions of those whose lives he is endeavoring to portray. Often a brief anecdote will convey more real information than pages of barren facts; and it will last long after they have been consigned to oblivion.

In reading the history under consideration

we have been struck with the tact and wisdom displayed by the writer in vividly portraying the inner life of our people in the period immediately preceding and during the Revolutionary War. We have seen a child but eight years of age become so deeply absorbed in its pages that he was entirely oblivious of all his surroundings; the real story of a people had for him as deep an interest as a love tale does for a young maiden. In fact, we said to ourselves, Here is the crucial test; if that book is so written that a boy who has barely learned to read can become so absorbed in its contents as to prefer its pages to his beloved St. Nicholas and all youthful sports, it must be the history for our schools. There must be something in the style and contents which so impress themselves upon the mind of the reader that the leading events of our nation's life become a living reality. We cannot too highly commend it to the careful consideration of our teachers. If it is impossible to place it in the hands of the pupils, it should be found upon every teacher's table and so be accessible to the school. It is an excellent book for the district library, and will be found invaluable to those who wish to review in a pleasant way our country's history.

BOOKS AND HOW TO USE THEM: Practical hints for Readers and Students. by John C. Van Dyke. 12mo, vellum cloth. \$1. New York: Fords, Howard, & Hulbert.

This attractive little volume is intended to meet the demand for a book on books that shall tell clearly, concisely and practically the advantages of reading, the best ways and methods of reading, the best places and times for reading, the best classes of books to read, and the manner in which best to get access to the knowledge contained in books housed up within the walls of a public library.

The book is one to be recommended to every reader, particularly young readers and college students, for whom it was especially designed and whom it cannot fail to benefit, as it records the experience of one who has been a reader for many years and has learned by experience that which he would teach others by precept.

As a student's guide and handbook it will fill a heretofore vacant place.

THE teacher that has graduated at a Normal school has not done all that is necessary to success. He should carefully study constantly the best works on teaching. As a teacher's *cyclopedia* for study, reference, and review, nothing approaches THE TEACHERS' AND STUDENTS' LIBRARY. It covers the whole ground: *common branches, science, history, school law, mythology, how to study and use books, etc.*, all in one large \$3.00 volume. T. S. Denison, Chicago, Publisher.

LITERARY NOTES.

Voltaire's *Commonplace Book*, in which he jotted down notes of his own and any stories or sayings which struck his fancy, has just been published in Paris.


Oxford is to have a Historical Society on a plan laid down by Mr. J. R. Green some time before his death. Mr. Stubbs and Mr. Freeman are among its supporters.

The recent death of Captain Matthew Webb will lend interest to an article on Sea-Bathing and Floating, from his pen, which appears in the current number of *Harper's Young People*.

Edward Arnold, author of the *Light of Asia*, will publish another volume of Indian poems in October. It will be composed of idylls from the Mahabharata. An illustrated edition of the *Light of Asia* is announced in England.

Lippincott's Magazine, for September, contains, Viareggio, an Italian Watering-Place, by M. L. T., with illustrations; An Episode of John Brown's Raid, by Col. A. K. McClure; Our Summer Court in Schoharie, by P. Deming; Delia Grimmett, a story by Arlo Bates; The Metropolis of the Farm, by Edward C. Bruce; The Worst Man in the Troop, by Charles King, U. S. A., author of *The Colonel's Daughter*, etc.; Five Graves in Montana, a frontier sketch, by Solomon Bulkley Griffin; In Suspense, a Colloquy between Carlyle, Bishop Wilberforce, and Beaconsfield, in Purgatory; The Discipline of Paper Dolls, a story, by Annie Eliot.

The Wheelman, the organ of bicycling in this country, increases in excellence with every number. It falls very little short of the standard magazines in point of pictorial merit, and its literary qualities are invariably good. The leading article in the August *Wheelman* is the account of a bicycle trip to the Natural Bridge, Virginia, and another interesting paper is that entitled A Medical Symposium, which presents the claims of the bicycle and tricycle as aids to health and recreation. No bicyclist should be without this most excellent exponent of his chosen pastime.



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CHAPTER VI.

GLIMPSES OF SIN AND CRIME.

GLEN GOODWIN did not believe in keeping his pupils ignorant of vice, but he desired them to see crime and sin in their own hideous shapes, stripped of the trappings which seem to make them attractive. So he took them, by twos and by threes, to the haunts of vice, bade them look at the men who frequented the saloons, see their bloated faces, bleared eyes, and shaking hands, and ask themselves whether or not it paid to drink.

"Even the sellers of whisky are ashamed of their business," Glen said. "See how they try to shield themselves behind screens and painted windows! You never hear a saloon-keeper speak of his business with pride, but he meanly apologizes by saying, 'Some one else would sell it if we did not,' as though that were an excuse for doing wrong."

"Do saloon-keepers live as long as other men?" inquired Archie.

"No. They generally die thirty or forty years before a man should die," replied Glen. "You seldom see a saloon-keeper who is fifty years old, and few begin keeping a saloon until they are twenty-five. I do not suppose the most of them live ten years in a saloon."

"Then, if it hurts them and hurts other folks, why do they do so?"

"Because they are lazy, my boy," replied Glen. "They find they can make money in the business with only a little to start with, and there is hardly any work about it; so they shut their eyes to the harm they do others, and they foolishly think they will escape harm themselves, though others have suffered. There are many people looking out for easy, paying jobs, and they seem willing to sell their honor for money."

"When I keep store I shall sell candy and sugar and medicines," said Byron.

"All the grocery stores in Pacifiction sell tobacco," replied Glen; "and I hardly know which is the worse—tobacco or whisky. See that little boy puffing his cigarette. He is stopping his growth, hurting his mind, and showing to everybody that he is anxious to be a hoodlum. I think the merchant who sold him cigarettes is as bad as any saloon-keeper. But people do not yet see that a man who sells tobacco is as mean as one who sells liquor. Then the stores which sell medicines supply many a person with opium, which is as bad as either whisky or tobacco, only it is not so much used."

"How many wicked people there must be in the world!" said Byron. "Why don't they all be good like—like we are?"

Glen smiled at the young Pharisee's self-complacent remark, which he put aside for future reference, and replied, "People sin because they do not learn to control their appetites when young. If a boy is brought up on tea and coffee from early childhood, when he is eighteen he will begin to want something stronger. He sees older people using tobacco, so he learns to smoke or to chew. From tobacco, it is an easy step to liquor, and the more times one uses either liquor or tobacco the more he craves it, until he cannot do without it. Such things weaken the mind and make people brutal, and so they get more and more wicked until many of them end by doing things they couldn't have been tempted to do in earlier years."

Then Glen accompanied his pupils to the jail, and inquired minutely of the jailor as to the habits of the prisoners and the causes that led them to commit the crimes for which they were imprisoned; and the little ones learned that all the prisoners with one exception were users of strong drink, and all but two used both liquor or tobacco. The children also found that most of those who were in for acts of violence were swearing men, and Glen showed them how natural it was to expect those who could not control their tempers to be addicted to the use of rough language. A dance-house of notorious character, appropriately named the Stingaree, was pointed out to the children, and though it was yet early in the afternoon a couple of the *habitués* of the house lay, in a drunken stupor, near the fence.

"Why do the people allow such places to be in Pacifiction?" inquired one of the twins.

"Because they pay a little license to the town," replied Glen. "The people are not all wise enough to see that the hundred dollars license these places pay, are paid out again ten times over by the cost of the crimes committed by those who frequent these places. That house has been the cause of three shooting and stabbing affrays within the past year, and they have cost the county over \$2,000, besides the curse the place has been to other men. Living near such a house hurts the children for blocks around. I hope your one sight here will do you good, but for no money would I have you see these sights every day until your feelings become blunted, and your eyes used to the sight of crime."

A painted courtesan, flaunting by them, next attracted their attention, and Glen told them how such poor creatures lived by ministering to the vile passions of men.

"Yet many of these women are less to blame and more to be pitied than men who would not look at them in public, but help pay for their vileness in private," Glen told the boys. Gaming-saloons were discussed, and while the children were shown the innocence of most of the games in themselves, yet they could see that many of them led to bad company, to betting, to idle waste of time and money.

Horse-races were unsparingly condemned. "If you will notice those who make it a business to attend these races," said Glen, "you will find the most of them are gamblers and drinkers. Cheating is an accompaniment of nearly every race, and betting is only a form of stealing."

"But Uncle Harry said if it had not been for horse-racing, we would not have near so fast horses," said Archie, who dearly loved a fast horse.

"Nearly every very fast trotter is more or less diseased," replied Glen. "And if people had not such foolish desires for fast horses, that are good for little else than speed, we should have better work-horses, and one good work-horse is of more real value to the country than two fast trotters."

Evidences of careless farming and wasteful habits were pointed out, as the children rode by the farms on their journeys to the various places they visited, and Glen bade them see how much thriftier those farmers looked whose houses were painted, their fields free from weeds, and their fences and out-buildings in good repair.

Laziness and waste go together, and a saving person is an industrious one. Young people are too apt to confound economy with parsimony, and waste with liberality. And not only young people, but older folks, say of a man who carelessly hands out money to whoever asks him for it, "How generous he is!" Tramps were not welcomed at the Modoc school, for Glen taught the pupils that it is wrong to feed wandering vagabonds who will not work, and who generally spend whatever they earn in the first whisky-saloon. No worthy person asks for a meal without expecting to pay for it, and an honest tramp's first inquiry is for work.

"But honest tramps are rare. For fourteen months, at one place, my landlord had a standing offer of two bits a meal, provided he would not feed a tramp until the tramp had cut a quarter of a tier of stove-wood; but, though a sharp ax and plenty of poles lay in front of the door, but one tramp would work for a meal, and that tramp was crazy," said Glen.

"Even the dogs are wiser than many people, for they recognize a tramp at once, and protest vigorously against his coming."

Yet the young people were taught that there is such a thing as honest poverty, and that the way to help the honest poor without hurting honest pride is to give such people paying work. Put chances to make money in their way. It is to be feared that many people feel a sort of satisfaction at seeing others do poorly, that their own success may be the more noticeable.

Even teachers are sometimes guilty of this. But too frequent sights of crime or too frequent talks of sin are not profitable. Glen rather chose to read of and talk about those noble deeds which stir boys and girls up to emulate such noble actions.

The faults of the boys and girls—and they had many—were reproved more often by looks of astonishment and coldness of manner rather than by sharp words of censure. A public offense received usually enough public notice so that the others could see that the fault was seen and condemned, but the reproof was mainly given in private. A teacher is not wise who makes his punishments open, and the same wisdom which forbids hangings being open to the public gaze should give to floggings a certain concealment. A punishment whose severity is well known loses much of its deterrent force.

A breeding place of coarseness and sin is the water-closet of a school. Disfigured with vile cuts, obscene words and rhymes, and disgusting to nose and eyes, the great majority of water-closets are a disgrace to our civilization.

Teachers should see by daily inspection that the outbuildings are kept clean and free from marks. During the first school year of the child, he should be instructed how to conduct himself in this respect, for two-thirds of the six-year-old children have never received any home instruction on these points more than the savages get. They only escape being immodest by never having eaten of the tree of knowledge; and however wrong it might have been for our first parents to eat of the forbidden fruit, society demands that we give the young free access now to the tree. We are even required to stew up our apples of knowledge with sugar and spices, to make them palatable to the youthful taste.

There is another source of sin which parents allow to come into their homes the more readily that they like to feast upon the horrors themselves. The Georgia judge who condemned the agent of the Police Gazette to pay a heavy fine and suffer imprisonment, deserves the thanks of every moral-minded person. Bad reading does not do half the harm that evil pictures bring about.

There are dozens of illustrated papers to-day which deserve suppression as public nuisances, and Glen Goodwin was careful to guard the children at Cañada Grande from such sources of corruption. It is a question whether our newspapers should not be forbidden to publish minute details of horrors as they do; but so long as a vitiated public taste craves such reading, so long will it be supplied.

C. M. DRAKE.

Santa Paula.

The latest report of the school-master being "abroad" is from the young high-school student who, writing from dictation, halted at the sentence, "the jeremiad against the schools," asking, "*Jeremiad—name of a gentleman?*" "Yes, go ahead"; and he did go ahead, and translated the "gentleman" from Palestine into "*Jerry Myad*," a gentleman from Ireland. The companion-piece was furnished by the young normal school lady, who, in answer to the request, "Describe the Flora and Fauna of Europe," wrote: "*The Flora and Fauna of Europe rise in the Ural Mountains, flow south, and empty into the Mediterranean Sea.*"—*N. E. Journal.*

HENRY FIELDING.*

NOT from the ranks of those we call
 Philosopher or admiral ;
 Neither as Locke was, nor as Blake,
 Is that great genius for whose sake,
 We keep this Autumn festival.

And yet, in one sense too, was he
 A soldier—of humanity;
 And, surely, philosophic mind
 Belonged to him whose brain designed
 That teeming Comic Epos, where,
 As in Cervantes and Moliere,
 Jostles the medley of mankind.

Our English novel's pioneer!
 His was the eye that first saw clear
 How, not in natures half effaced
 By cant of fashion and of taste ;
 Not in the circles of the great,
 Faint-blooded and exanimate,
 Lay the true field of jest and whim,
 Which we to-day reap after him.
 No; he stepped lower down, and took
 The piebald people for his book!

Ah, what a wealth of life there is
 In that rich, easy page of his !
 What store and stock of common sense,
 Wit, laughter, lore, experience !
 How his keen satire flashes through,
 And cuts a sophistry in two !
 How his ironic lightning plays
 Around a rogue and all his ways !
 Ah, how he knots his lash to see
 That ancient cloak, hypocrisy !

Whose are the characters that give
 Such round reality ? that live
 With such full pulse ? Fair Sophy yet
 Carols " St. George " at the spinet ;
 We see Amelia cooking still
 That supper for the recreant Will ;
 We hear Squire Western's headlong tones
 Bawling, " Wut ha ? wut ha ? " to Jones.
 Are they not present now to us—
 The Parson with his *Æschylus* ?
 Slipslop the frail, and Northerton,
 Partridge, and Bath, and Harrison ?
 Are they not breathing, moving—all

The motley, merry carnival
 That Fielding kept, in days ago ?

He was the first who dared to draw
 Mankind the mixture that he saw ;
 Not wholly good nor ill, but both
 With fine intricacies of growth.
 He pulled the wraps of flesh apart,
 And showed the working human heart.
 He scorned to drape the truthful nude
 With smooth, decorous platitude.
 He was too frank, maybe, and dared
 Too boldly. Those whose faults he
 bared

Writhe in the ruthless grasp that brought
 Into the light their secret thought.

Therefore the Tartuffe-throng who say,
 " Couvrez ce sein," and look that way ;
 Therefore the priests of sentiment
 Rose on him with their garments rent.
 Therefore the gadfly-swarm, whose sting
 Plies ever round some generous thing,
 Buzzed of old bills and tavern scores,
 Old " might-have-beens " and " heretofores " ;

Then, from that jumbled record-list,
 Made him his own Apologist.

And was he ? Nay ; let who has known
 Nor youth nor error cast the stone.
 If to have sense of joy and pain
 Too keen—too rise, to fall again,
 To live too much—be sin, why then
 This was no phoenix among men.
 But those who turn that later page,—
 The journal of his middle age,
 Watch him serene in either fate,
 Philanthropist and magistrate ;
 Watch him as husband, father, friend,
 Faithful and patient to the end ;
 Grieving, as e'en the brave may grieve,
 But for the loved ones he must leave ;
 These will admit—if any can—
 That, 'neath the green *Estrella* trees,
 No artist merely, but a Man,
 Wrought on our noblest island plan,
 Sleeps with the alien Portuguese.

AUSTIN DOBSON.

*Verses read at the unveiling, by Mr. J. R. Lowell, of Miss Margaret Thomas's bust of Fielding in the Shire Hall, Taunton, September 4, 1883.

HOW ORAL GRAMMAR SHOULD BE TAUGHT.

1. Lessons from 6 to 7 years of age.
First year in school.
 - { Pictures,
Form,
Size,
Color,
Weight,
Place,
Objects, &c.
2. Lessons from 7 to 8 years of age.
Second year in school.
 - { Order,
Cleanliness,
Obedience to parents,
Obedience to teachers,
Duties to brothers,
Duties to sisters,
Kindness to playmates,
Kindness to animals,
Quarreling,
Fighting,
Returning good for evil,
Sin of lying,
Sin of stealing,
Sin of swearing, &c.
3. Lessons from 8 to 9 years of age.
Third year in school.
 - { Quality,
Kindness,
Politeness,
Behavior at home,
Behavior at school,
Behavior in public,
Behavior at table,
Etiquette, &c.
4. Lessons from 9 to 10 years of age.
Fourth year in school.
 - { Statement,
Parts of statement,
Inquiry,
Command,
Parts of command,
Sentence,
Parts of sentence.
 - Proper use of { is,
are,
were,
was,
has,
have,
those,
them.
 - Quality words as sour, sweet, &c.
Action words.
5. Lessons from 10 to 11 years of age.
Fifth year in school.
 - { What a sentence may be,
Subject of a sentence,
Predicate of a sentence.
 - Noun, { A noun may be used as
the subject of a sen-
tence.
 - Uses of noun, { A noun may be used as a
part of the predicate.
A noun may be used as
the name of the party
commanded.
 - Proper noun,
Common noun,
Extent of application of words,
Limited " " "
 - Adjectives,
Uses of adjectives, { 1,
2,
3,
4.
 - Verbs,
Uses of verbs, { 1,
2.
 - Adverbs,
Uses of adverbs, { 1,
2,
3.
 - Verbal words,
Relation word,
Conjunction,
Emotional word,
Classify words or written parsing.
6. Lessons from 11 to 12 years of age.
Sixth year of school.
 - 14 to 15 lessons to develop idea
of Person.
 - Properties of nouns and Pro. { Person, { 1st,
2nd,
3rd.
 - { Number, { Singular,
Plural.
 - { Gender, { Masculine,
Feminine,
Neuter.
 - { Case, { Nominative,
Possessive,
Objective.
 - Prop. of Verbs. { Mode, { Indicative,
Subjunctive,
Potential,
Imperative.
 - { Tense, { Present,
Past,
Future.
 - Must agree with subject in person and number.

THE way grammar *should not* be taught is the way it was taught when I attended school in my childhood. When about twelve years of age, my teacher said to me one day, "You are old enough to study grammar; get Kerl's Common School Grammar." I walked to school the next morning very proud that I was advanced to the grammar class, and so happy to commence my new study. But, alas! How soon were my ardor and enthusiasm cooled by being at once launched into rules of syntax, prosody, and etymology. Kerl's Grammar is an excellent book in its place, so also is Swinton's, but their place is not in the hands of children. I beg of you, train the little minds in appropriate channels; not in the channels that your mind now occupies. Let an oral course precede the use of the text-book in teaching grammar. One way to teach grammar, when the child first enters school, is to be observant, and correct all ungrammatical expressions made by the child; also cultivate language in reading lessons; this may be done in various ways. Teacher may suggest for words, have children give substance of the lesson in their own words, but require full statements and be very careful that correct language is used. The teachers in our district schools are very much pressed for time, but a judicious teacher will take at least ten minutes per day for such lessons as I mention and have presented for reference on the preceding page in a tabular form. The lessons, in form, size, color, etc., can be made extremely interesting by a live teacher; always conduct these lessons in a bright, vivacious, conversational manner, never letting any stiffness or formality creep in—if you do, the life is gone. The following is one of the best plans for a language lesson: Present some pretty pleasing picture to the class. Have the children mention all the objects they can find in the picture; see who can find the most objects. Lead them to see the different expressions of men and animals; what expression indicates joy, sorrow, fear, surprise, anger, etc. Lead the children to infer as much of the story as possible, and you will often be surprised how accurately they will get the principal points. The teacher then tells the story in words as much adapted to the child's capacity as possible, confirming all that was right which the children have said. Lead children to see the motive for what the picture represents as being done. In all of these lessons *never* accept word-answers; remember the objects are to cultivate good language, good morals, teach observation, and teach them to express their observation. This work should continue during the first school year; i. e., the child enters school at six years of age, continue this work until he is seven years old. At the commencement of the second year's school, commence the lessons in the tablet marked from seven to eight years. These lessons are to be conducted in precisely the same manner as during the previous year, but the ideas are far more abstruse. Of course, a teacher can select many subjects that are not given in the tablet; I have only mentioned a few as a guide. A lesson on "The Sin of Lying" may be given in the following manner: Present some picture, as above, in which the motive is lying, but the moral good. Lead children to see the sin and wrong of falsehood, and how much better it is to tell the truth; ask children what we all ought to do at all times: they will answer, "We ought to tell the truth." Impress this upon

their minds, but never ask a class who knows of any one that ever told a lie, or if they ever told one. Such questions are useless, and, ten to one, you would lead some pupils to tell a lie then and there. Proceed with these lessons in like manner until the child is eight years of age; and from then until he is nine give lessons on quality, kindness, politeness, etiquette, etc. Under the heading of etiquette you can teach the children so many useful things, that make them so much more agreeable, that tend to refine and elevate them. These lessons are very useful, as many of the children have no culture at home; far the opposite. All of the foregoing three years' work may be called "Language Lessons"; but call it what you will, it is the foundation of oral grammar. Intelligent reading, language lessons, and oral grammar are inseparable, and may be taught at one recitation so far, but now we must separate them; teach the oral grammar by itself, but the language lessons and reading should still be combined. At the commencement of the child's fourth year of school, commence the tablet marked from nine to ten years. The first lesson is to develop the idea and obtain the definition from the children of what a statement is. In order to do this, present several different objects to the class, asking each child to raise hand that can tell something about the knife, book, match, flower, etc., as the case may be. In this manner get six or eight statements, writing each one, when given, on the board. Teacher can develop the idea of "group" and the term "statement" synonymous with "tell" or "make known." In this manner, lead the children to tell you "that a group of words used to state something is called a statement; that word or words about which something is stated is called the first part; that the words which tell what is stated is called the second part, and may consist of one or more words. This gives the drill for subject and predicate, which comes farther on. Develop in like manner that "a group of words used to ask a question is called an inquiry," and "that a group of words used to order something to be done is called a command"; that there are two parts to a command—the name of the party commanded and the command or order given. The name of the party commanded is sometimes omitted; lead children to see that when the name is not omitted, a comma is placed after the name of the party commanded. Have a great quantity of slate work done at this; as each definition is obtained, require the children to bring ten statements to the class the following day about what they have seen on their way to school, etc. The same after inquiry, command, then five of each, etc. Next develop the idea of sentence as follows: Ask the children to give a statement, inquiry, and command, and write them on the board. Then ask the children what they did before they gave the statement, etc. They reply, "We thought."

Q. What did you make known your thoughts to me with?

A. With words.

Q. Instead of saying "make known our thoughts," what one word can you use that means the same as "make known"?

A. We express our thoughts. (Children may not give this term; then teacher gives it.)

Q. We express our thoughts with what?

A. With words.

Then give the matter, "A thought expressed in words is called a sentence." After giving term "sentence," give term "exclamation." A great deal of slate drill must follow this lesson, thus cultivating perception and observation. Every lesson should now be followed by one reproduction lesson at least; that is, give a lesson one day, and reproduce it the next day. Children are forgetful. Never be afraid of too much repetition in the schoolroom. Next, teach the parts of a sentence, calling them "first part" and "second part." The use of capitals, comma, and period should be taught when children first enter school, while learning to write. Quality words should now be taught, such as *sour*, *sweet*, *good*, etc., and action words. This will occupy the children until about ten years of age. At this time commence the fifth tablet. By suggesting for statements, inquiries, and commands, lead children to see that a sentence may be either of the three, but lead them to see that all statements, commands, and inquiries are not sentences. Now give the terms "subject" and "predicate" synonymous with first and second part of sentence and statement. Next teach the different parts of speech as given in the tablet. Call *the*, and *a* or *an* adjectives, and participles and infinitives *verbal* words. Several weeks should now be spent in what Swinton calls "written parsing," but I call classifying words. Draw lines forming columns for all the parts of speech and write the name of the class at the top. Let the children select words from their reading lessons until they have ten, fifteen, etc., in a column, and correct in the reading class. The next day have children bring slates all ready, and the teacher read a paragraph, the children putting the words in their proper column as she reads. Then let children compose sentences and class words. Anything for variety and drill. At the commencement of the child's sixth year of school, develop the following ideas, which can be done in about twenty lessons:

1st. That sentences are either written or spoken.

2nd. Spoken sentences have some one to speak them, some one to hear them, and that something is spoken about.

3rd. Written sentences have some one to write them, some one to read them, and something is written about. Have children state of each sentence, some one speaks, some one hears, and it is about something.

4th. In connection with every sentence, there are three parties: 1st, the speaker; 2nd, the hearer; 3rd, party spoken of.

5th. The third party is represented in all sentences.

6th. The first and second are represented when they are the third.

7th. When the first and third parties are the same, to avoid a misunderstanding they are represented by the word "I."

8th. When the second and third parties are the same they are represented by the word "you." In connection with the above statement teacher must bring out the idea that the speaker speaks of the third party.

9th. When the same third party is represented more than once in the same sentence, it is represented first by its own name, and afterwards to avoid an unpleasant repetition of the same name, by the words "he," "she," "it," "his," "they," etc.

10th. The parties are represented differently, to show the relation between the speaker and the party spoken of. The relation between the speaker and the party spoken of is called person.

11th. Because these words that represent the parties take the place of nouns, they are called pronouns.

12th. Because these pronouns express the relation between the speaker and party spoken of, they are called personal pronouns.

13th. Because the pronouns show person, they are said to have person.

14th. A personal pronoun which shows that the speaker is the third party is said to be in the third person.

15th. A personal pronoun which shows that the speaker speaks to the third party is said to be in the second person.

16th. A personal pronoun which merely shows that the speaker speaks of the third party, is said to be in the first person.

17th. The noun whose place the pronoun takes is called its antecedent.

18th. It is called its antecedent, because it is generally placed before the personal pronoun.

19th. Now give full definition of common and proper nouns. Follow this work with the other properties of nouns and pronouns, number, gender, and case, neither of which is at all difficult to teach. Only three genders should be taught, masculine, feminine, and neuter. Also the three cases, omitting same case until farther on. Next the classes and properties of verbs should be considered, the signs of the modes dwelt upon particularly, but teach only the three principal tenses at this time, viz., present, past, and future. Tell the children there are more tenses, and they may learn them after a while. Now they may commence to parse. Keep them on this work some months, and bear in mind, to be successful with this plan, you *must be thorough in every step*. No half-way work will do. A very good plan is to have each child have a neat little note-book, and after each lesson take down the matter of the lesson, and by the time the child is thirteen, it will have a nice little grammar of its own. Now, if you must use a text-book, take if possible Swinton's First Lessons; but continue your parsing on alternate days with lessons from the book. Review at least every Friday; reviews are invaluable in all schoolwork. Of course, the above is only a brief outline of the work to be done, with here and there an illustration of the *how*; but an ingenious teacher can take this skeleton and individualize it, broaden out the plan, fill in with new plans, and make it one of her own.

I have used this method for six years with admirable success; have taken dull, spiritless "grammar classes," and have had them live, working "language classes," after two or three recitations, and they had no idea they were still studying "grammar"—supposed the new teacher had dropped that study.

I do not claim the preceding method as original; but it is the plan I follow in my school work.

Many, very many of the ideas I owe to my Alma Mater, many to Mr. Swett, many to our Institute workers, and not a few to my personal experience in the schoolroom.

PREPARATIONS FOR THE STUDY OF GEOGRAPHY IN THE PRIMARY SCHOOLS.

I. Lessons on Place (including Relative Position, Distance and direction).

1. (a) To illustrate the use of the prepositions of place ; as *on, above, before, between, under, below, behind, around, etc.*

METHOD.

By placing objects.

The teacher places.....the pupil imitates.
The teacher places.....the pupil describes.
The teacher dictates.....the pupil places.
The teacher disarranges.....the pupil replaces from memory.

- (b) To illustrate the use of the terms, right, left, middle, center, corner, etc.

Lessons as above.

Right-hand corner	}	of table or desk.
Left-hand corner		
Front right-hand corner		
Back left-hand corner		
Middle of right side, etc.,		

- (c) Representations by the pupils of the relative position of objects on table or desk.

2. (a) To show the necessity for a standard of distance.

(b) Measurements in the school-room : inch, foot, yard, meter, decimeter, centimeter.

- (c) Representations on a scale, of the top of a desk or table, and of the floor, with the places of a few objects designated.

Thus far Primary-School work, and these lessons lead directly to the preparation for the use of maps.

II. Lessons on Plants and Animals.

That live on the *land*, in the *water*, fly through the *air*.

That have their home in *hot parts* of the earth ; in *cold parts* ; in *forests* ; in *plains* and *deserts* ; on *mountains*.

Most of the children have seen the animals that usually belong to a menagerie or a circus, and know that many of them are brought across the great *ocean* from other lands.

III. Stories and reading-lessons about people who live far away.

In what kind of homes. What they eat.

What they wear. What they do.

What animals they use.

The friends of many of the children have been far away by *sea* or *land*.

IV. General knowledge gained by most children before entering the Grammar Schools.

1. Of *land* and *water*.

Of the use of each (for living, travelling, food-products, etc.).

- Of different modes of travelling (transportation).
- Of different occupations of people (familiar and unfamiliar).
- Of different people and their ways of living (manners and customs).
- Of different features (hill, pond, and island).
- 2. Of *air* all around, over land and water (atmosphere.)
 - Of a draft of air (wind).
 - Of the quick drying of mud, clothes, etc., in a warm air ; in a windy day.
 - Of the different forms of water (fog, clouds, rain, snow, hail).'
- 3. Of the sun as giving light and heat.
 - Of the sun, moon, and stars, as far away.
 - Of divisions of Time—day, night, week, month, year, spring, summer, autumn, winter.
- 4. Of the terms circle, circumference, diameter, sphere, hemisphere (from drawing and form lessons).

LUCRETIA CROCKER, Boston.

(From *Methods of Teaching Geography*).

THE ART OF SUCCESSFUL TEACHING.*

THE teacher is a part of the primal necessities. We are civilized beings by virtue of our knowledge. Every child is at heart a gentle savage, and would soon become a very ungente one if left to find his own living on a desert island. But home, society, and the teacher combine to quicken his natural powers, restrain his evil propensities, and make him a useful citizen of the world. Continually, with each new generation the new battle begins. Stages may be superseded by steam, and telegraphs by telephones, but teachers will always have a work to do.

If we would know how to succeed we must first know what to call success. Now a sensible young person who proposes to teach desires: (1) To be reasonably happy in the school-room ; (2) to do the children positive good; (3) to leave a good name behind them; (4)—which with some teachers comes first—to make more or less money. All these desires are expressions of the wish to become a first-rate teacher.

At the foundation of all high achievement and worthy success, lies labor. No language can fitly describe its divinity. Whatever man has done the children of men may do once more. The sweetest song, the grandest epic, the most enduring statue, the noblest character, the proudest professional success, are, one and all, the results of labor, and of labor only. Teaching is an art drawn from all arts, a science crowned by all sciences, a profession which trains the masters of other professions. Therefore, the young teacher must have a comprehensive and intelligent plan of study.

* This article by Charles H. Shinn, formerly one of our brightest and most successful teachers, now a rising journalist and author, is part of an address delivered by him several years since before a Teachers' Institute.

If we manage matters wisely, there is no more honorable, pleasant, and healthy occupation than this business of teaching. We can make our names fragrant in the little brown school-houses, so that children shall, years after, remember us with loving tears. But we must understand our business thoroughly; we must have knowledge, method, skill, patience, and firmness. And all these will fail without affection for the little toilers.

But to take knowledge first: no man or woman can be successful as a teacher without the technical knowledge of the profession. By this I mean the text-book knowledge primarily, and something more. Text-book knowledge alone will not win success, but no one can succeed without it. With all force and clearness I state the fact—a teacher must study much and compare much. He must comprehend every principle, and memorize every important rule. He must be always in good examination order; in fact, I am inclined to think that certificates ought not to be renewed, because the quickening influence of three days' work is very great.

I have said that close, hard, technical study is one secret of success. Many persons will object to this. They believe in a sort of "general culture" theory, according to which the pleasant fellow who knows a little of everything will discount the "text-book" man. Possibly. But men have been finding out, this thousand years or so, that it is a great deal to have studied one art well. Beyond a doubt the graduates of our Normal Schools make better average teachers than the same number of persons who have "taken up" teaching. There are many, certainly, who reach the top of the profession by their own unaided endeavors, but they train themselves in the close, exact methods of the colleges and Normals.

There is, however, a great danger connected with the text-books. Opposite every use is, by a curious law of nature, its abuse. Narrow-minded teachers study text-books, and twist back and forth, without getting out of the covers, until they are known far and wide as walking editions of their favorite studies—walking idiots, I had nearly said. These are the men who swamp a school in arithmetic, or kill it with large doses of grammar, or ride the hobby of written examinations to the door of despair.

And so, having advised some close technical study, I hasten to add that we must also see good in many studies, and truth in many ideas. We must be broad, liberal, progressive people. Having mastered the text-books of our profession, we must rise to higher levels; we must live with the minds that make the text-books, and better still, with the few great leaders of human thought. Read and study whatever will throw an added light on the subject you are pursuing. Search in the reviews, magazines, and newspapers, in the latest books, and in the conversation of your friends, for those facts of art, science, and human nature which will supplement or interpret the text-book statement. Thus you will carry your knowledge to the latest date, and will understand every new discovery and invention; you will be master, not slave, of your text-book.

But a teacher's life must not consist wholly of school-room work. From one standpoint we are servants of the people, but a more sensible view is that

we are workers in a most important field of science—the educational—and that we are closely connected with every progressive science, and have many opportunities for original investigation. Beyond a doubt the successful teacher must have some favorite art or science to occupy his leisure hours. Botany, Natural History, or Geology, studied during little picnic parties or rambling Saturday excursions, will make your whole afterlife happier. The scientific study of whatever news your district furnishes is the best of training, and the teacher who carries it on is the fellow-worker of Huxley, Darwin, Tyndall, Wallace, Morse, Asa Gray, and other well-known men, to whose ranks you also may belong. My advice to all of you is: Have some out-door hobby, and ride it often. Keep your good nature and good looks by studying out-door science on the pleasant slopes, or in the long, sweet ravines.

Another thing the teacher must do is to write for some paper or magazine. A plain, concise, English style is a valuable acquirement, and only frequent writing will produce it. Note down some old pioneer tale, or Spanish legend, and work it slowly into shape. Become the "local man" of your county newspaper. If you have literary aspirations, do not be in too great haste. Be content to burn much, and publish little. Be willing to wait long years for recognition. Live with the masters of English prose and verse until their utterances are bone of your bone, and nerve of your nerve. If you would write poetry, read Milton's "Nativity Hymn," Wordsworth's "Ode on Immortality," Keats's "St. Agnes' Eve," and each poet's purest poem, until the melody of language and the charm of sound are yours forever. Then write of what lies nearest to you, and of what you best understand, and if you love the work sufficiently, you will win success.

If you have the professional feeling, you ought to take a teacher's journal. Every trade, art, science, and occupation on earth, from photography to soap-making, has a trade-journal, and supports it. We, too, must keep up those links of friendship—our professional journals. But the progressive teacher does not stop there. The best and freshest reading of to-day is put in the reviews and magazines. If a man will take the *Popular Science Monthly*, the *Atlantic*, and the *New York Nation*—and read them—he will be in the currents of the world's thought. These things cost money, but it is starvation, stagnation, and mental death to do without them. Teachers in adjoining districts can club together and exchange their magazines.

When you buy books, if you are wise, get books to keep. Borrow your novels. Don't buy any agent's books, unless you are an agent yourself. There are volumes full of freshness, wit, pathos, and wisdom, and most of these were written long ago. There is quaint Charles Lamb, philosophic Francis Bacon, odd Oliver Goldsmith, our star-like Emerson, and many others. The true teacher is the lover of true literature.

I have noticed that many teachers fail on what we may call the human nature side of our work. It is best for young teachers to mingle largely with the people. It is good for them to realize the homely life, the hard labor, the struggle of many parents to educate their children, the noble hearts under coarse clothing, the honesty and kindness of so many. Let us then sympa-

thize heartily and completely with the interests and the daily affairs of the district, encouraging every germ of good, and thinking no evil of any one.

The young teacher does well to take an interest in politics; in fact, his views should of all men's be clearest on the questions of the day. The teachers of the State form a conservative body of great average ability and fairness. Can we never learn to speak together on educational topics? Shall legislatures fight forever over text-books? Do we not know what we want done? The vital need of to-day is purer government. We must have no public debts, no further waste of public lands, no unequal taxation, no race of slaves in our midst. By the right arm of law, and by the expressed will of the people, we shall gain these things,

And, while we have a social feeling towards others, let us not neglect our fellow-teachers. Cultivate a class-feeling—a professional pride. Stand by your county superintendent in his plans for improvement. Visit each other's schools, and speak of them kindly. Go to your Institutes for the same reason that the little boy went into the pantry—to have an uncommonly good time. In short, enjoy life as you go.

After all, we come back to the schoolroom, in which we mainly spend our lives. We all know the story—Monday morning—dinner pails on the doorstep, boys on the fence, girls chattering like magpies—bell rings. We all know the ups and downs, the good lessons, the failures, the funny sayings, and new experiences. We are all acquainted with the little boy who reads p-o-n-y, (horse) and o-x (cow). I had an Irish boy once who came to the word "ape," in his primer. He was staggered a moment, but, casting his eyes on the picture opposite, hespelled bravely, a-p-e, Chinaman—which was hard on the ape. A good many funny things occur in the schoolroom. I visited a rather disorderly school once, and noticed the following scene: Three large boys were in the back row of seats. No. 1 was studying; the other two had pea-shooters, and were seeking some worthy object. No. 2 then drew a fine bead on the tip of No. 1's nose, but just as he let go, No. 3 hit him unexpectedly in the eye. No. 1 jumped; No. 2 howled, and No. 3 put his pea-shooter away, and began to study with a subdued air of innocence. Now, that is boy-nature for you! We all know, too, how the boys will take pins and pens and fix them under the desk, so as to produce a concatenation of ghostly sounds, like that of ten cats in a tin bucket. And the girls—well—*don't* they just like to whisper?

One of the qualities that wears well in the schoolroom is dignity, not "put on," but real. Take the reins of government firmly the first day. Let the children see that you like them, and will do all fair things, but nothing unreasonable. Above all things, have respect for yourself, and for your office. I was walking with a teacher once, when one of his big boys passed us smoking a big cigar. I expected to see the cigar leave his mouth, and to hear a polite salutation. This is what I heard, much to my companion's mortification: "Hullo, Smith! fine day."

I shall not touch upon the subject of punishment. If it becomes necessary, let it be thorough. Punishment must be reformatory, not vindictive. If

you would avoid this necessity, except in rare cases, teach your children to trust your honesty, and admire your knowledge, and return your love with equal love. Children are perfect hero-worshippers, and herein lies a great element of success. How eagerly the children get ready to welcome a new teacher; how they watch him the first day; how they like new ideas, new methods, and a system which leads them on and up without monotony!

The subject widens upon me. O teachers! Ye who train the children of men, my sympathies are with you, and for you. May you build a beautiful future; may you enter the wide open gates of the great temple of wisdom, whose foundations are the pillars under the world, and over whose columns the universal heavens shine and the deathless stars march forever. We have a world to love, a world to know, a world to conquer. Wherever there is ignorance, crime, and want; wherever the children of men despair; wherever winds blow and waters run—there your work shall lead you. On heights where the pines lift their silver lances; in valleys deep and fruitful; on the cliffs above the long breakers of the sea—everywhere you, to whom I speak, shall be found doing your noble work. To knowledge add firmness, to firmness add patience, and temper all with the golden light of love. Yours are the thinkers and the toilers of the next generation, so see to it that you are pure and strong, are sincere and gentle. Love truth always; be loyal to the highest in manhood and womanhood. Look forward and not backward. Carry the aspirations of humanity in your beating hearts, for you are the color-bearers of the race, and you plant your flags on the newest peaks of achievement. As you, conscientious teacher, educate others, be sure that you also educate yourself.

CHARLES H. SHINN.

EDITORIAL DEPARTMENT.

THE SAN FRANCISCO *CHRONICLE* AND THE SCHOOL SYSTEM.

THE San Francisco *Chronicle* is one of the great newspapers of our day. To this Pacific Coast it is what the *Herald* or *Tribune* is to New York, what the *Times* is to Chicago, or the *Courier-Journal* is to Louisville. Nor can it be truthfully said that this proud eminence is undeserved. On all great questions affecting the interests of the people, the *Chronicle* has always been on the side of progress and of right.

The preceding sentence reads "on all great questions"; but there is one unfortunate exception. In its treatment of the public school system of this City and State, the *Chronicle* displays neither wisdom nor fairness. For a number of years its powerful influence has been exerted to limit the schools in their legitimate work, to starve them into a condition where they are enabled barely to exist.

Under a policy of mistaken economy, for which we believe the *Chronicle* mainly responsible, the school system of the State and City has steadily deteriorated, until now the schools do not begin to compare in efficiency with their work of five years ago.

Two recent editorials in the *Chronicle* exemplify this spirit of unjust, narrow, and ill-formed criticism. In the first, about a month ago, Supt. Moulder is found fault with because he insists that \$700,000 is not sufficient to carry on the schools of the department for the present fiscal year. It is intimated that there is extravagance in the management of the school funds; even that higher salaries are paid than is necessary. It compares salaries here with those in Cincinnati and Cleveland, and leads us to infer that it favors reductions here. As the principal teachers in San Francisco are paid less than in any other first-class city in the Union (and in some second-class cities) the suggested reductions must necessarily be in the salaries of assistants. If this is what the *Chronicle* means, we should like to know it; from our standpoint we can see no room for reduction in lower salaries, but much ground for a decided advance.

In its second article, an attack of the New York *Sun* on the estimated expenditure for the College of the City of New York is quoted approvingly, and the application is extended to San Francisco, where a similar extravagant spirit is charged as existing.

We have read this *Chronicle* editorial with deep regret. It seems to show a deep-seated prejudice capable even of distorting facts, or else an ignorance, inexcusable in a great public journal. It is charged (and this to strengthen the *Chronicle's* position against increased appropriations in San Francisco) that the New York expenditure of \$3,884,000 for 1882-1883, and the estimate of \$4,250,000 for 1883-84, are less in proportion than our expenditures for the same period, the proportion of school attendance in New York to ours being as six to one. Now, if the *Chronicle* were more friendly or better informed, it would see that the average daily attendance for 81-82, was 29,433 here to 113,000 in New York, or less than one to four, the expenditures being \$735,474.61 here to \$3,884,000 in New York or nearly one to five. It would also know that leading positions there, from the Superintendents, and his assistants to the principals, are worth from ten to twenty per cent more than here; and that this increase is at the expense of the subordinate teachers of the department. It will also find that New York spends on the higher education twice as much proportionately as San Francisco.

We hope the *Chronicle* will deal fairly with the schools. Let it inform itself accurately what they are doing; examine through personal inspection into their needs: determine by study and comparison their proper scope.

This has not been its method of procedure in the past; else it would never have permitted the insertion of that pernicious section into our State Constitution in relegating the granting of teachers' certificates to local boards—a section which has already lowered the standard of teaching in this State and diminished the efficiency of the schools.

The *Chronicle* has undoubtedly been successful in its undertakings—in school matters as in other public measures. Comparing the year ending June 1876 with June 1882, we find that while the school expenditure has decreased over ten per cent. the daily attendance has increased over twenty per cent. But the JOURNAL binds itself to prove that the schools have deteriorated both in the quantity and the quality of instruction. The *Chronicle* contends that \$700,000 is ample to carry on this department for the year. Yet the JOURNAL binds itself to show that there are in this city to-day, more than 2,000 children for whom the schools can afford no accommodation.

The few points presented touch but the surface of the subject; to go to the core would take a volume.

But we commend them to the consideration of the *Chronicle* in the belief that a

great public journal can not afford to be wrong or continue to go wrong on a vital question.

We are satisfied that it will be found true in the school business as in all other activities of life that "penny wise is pound foolish;" and that the article costing the least money is not always the cheapest.

EDITORIAL PARAGRAPHS.

From the Secretary of the C. L. S. C., for California, Mrs. M. H. Field, we have the following interesting note in regard to the work of that order for the coming year.

"With the month of October begins the Chautauquan year. The prompt and energetic members of the society have, ere this, organized their circles in neighborhoods or churches, and with books all provided, are ready to begin on the first day of October the year's course of reading. The present year offers an excellent opportunity to new members, as the course of study now returns to the first year, and students can take up the various studies in their natural order. The first reading for the month of October is the History of Greece.

To those who have read the first volume of Timogenis' History, the second volume will be the one required; but of new students, the book required is a shorter and more condensed history, called "Brief History of Greece."

A primer of American Literature, by C. F. Richardson, will also be read in October, and the monthly reading in "the Chautauquan."

The society begins its new year under favorable auspices, and with increased membership. The course of reading is particularly inviting to teachers who wish to keep their studies fresh in their minds, and to be *en rapport* with all scientific and literary movements. Address letters of inquiry to the Secretary, Mr s. M. H. Field, San Jose."

WE are sorry to see some of the leading educational journals of the country "falling foul" of one another on the subject of the "New Education." *The New England Journal* holds there is no new dispensation and no new prophet, while the *New York School Journal* says a new era has dawned and Parker is its aurora. Perhaps the distance makes the whole controversy seem to us like a vanishing point, infinitesimally small.

We venture "to guess" that the "New Education" isn't much newer than Froebel, or perhaps Pestalozzi, or Rousseau, or Comenius, or Quintilian, or Aristotle, or Plato, or Socrates.

At all events, new or old, is that a point worth quarreling over?

IN strong contrast with the unjustifiable partizanship, exhibited by several boards of Education in this State, shines the example of the San Francisco Board. In the latter instance, a number of leading positions in the department have become vacant; and the most meritorious candidate was generally elected, proving in every instance but one a member of the opposite political party, the Board being unanimously Democratic.

THE forthcoming meeting of the State Association of Teachers, which is to be held in this city, Dec. 26, 27, 28, promises to be a grand success. A programme, varied in subjects and speakers, has been prepared, and ample time for preparation given. Among the subjects to be discussed are Industrial Education, The Spelling Reform, Corporal Punishment, etc. A large attendance is anticipated.

IT will be observed that this issue of the JOURNAL is preeminently a book number. It will further be noticed that many of the books are intended for and are well adapted to practical school-room work. In the department of training in English, the publications are especially numerous and valuable, particularly those issued by Houghton, Mifflin & Co., J. R. Osgood & Co., and the Scribners.

EVERY teacher in the land should read at least one article in the November number of *Haper's Magazine*, "Our Children's Bodies," by William Blakie.

The conclusion forces itself on us that the two subjects of physical and moral training—more especially the former—are greatly neglected in our schools. There should be a speedy remedy for a condition of things that grows worse year by year.

SCIENCE RECORD.

THIS RECORD is under the editorial charge of Prof. J. B. MCCHESENEY, to whom all communications in reference thereto must be addressed.

AN excellent stain for giving light-colored wood the appearance of black walnut may be made and applied as follows: Take Brunswick black, thin it down with turpentine until it is about the right tone and color, and then add about one-twentieth its bulk of varnish. This mixture, it is said, will dry hard, and take varnish well.

THERE are reports from several parts of Sweden, of a hitherto unknown and very destructive kind of caterpillar which is giving a great deal of trouble to the farmers and anxiety to the whole population. It is gray-brown, with deep gray stripes; its appearance is most common after rain. Its work on the crops has been so serious as to demand the assistance of the Government.

THE city of Morris, Ill., has been putting down an artesian well on the highest point of land in the city, and at a depth of 854 feet struck a fine flow of magnetic water, which is so strongly magnetic that the pipes through which it runs became so strongly magnetized as to hold up nails. The boring, after leaving the coal at seventy-six feet, to the depth of 340 feet, was alternately through fire-clay and lime-rock. At 340 feet St. Peter sandstone was struck, and at about 650 feet a very hard stone, which appeared to be highly magnetic, was struck, in which they drilled 200 feet.

THE ebonized wood which has now come into such extensive use for decorative purposes is pronounced fully equal, and in some respects preferable, to the genuine ebony. One of the most satisfactory methods of producing a superior article of ebonized wood is to take a fine grained growth of apple, pear or walnut, and then proceed as follows: Boil in a glazed vessel, with water, four ounces of gall nuts, one ounce of logwood chips, half an ounce of vitriol, and half an ounce of crystallized verdigris; this to be filtered while warm, and the wood brushed a number of times with the hot solution. Thus stained

black, the wood is then coated two or three times—being allowed to dry completely after each coating—with a solution of one ounce of iron filings in a quart of good wine vinegar. This should be prepared hot and allowed to cool before using.

THE German medical journals are discussing a new medical agent recently discovered by Prof. Fischer, of Munich. In the course of a long series of investigations concerning the nature and action of quinine, he found that by means of certain chemical transformations a substance can be obtained in the form of a white crystalline powder from coal-tar, which greatly resembles quinine in its action on the human organism. He has given this new agent the name of "kairin." The chief effect produced by it appears to be the diminution of fever-heat, and in this respect it bids fair to be useful. It is even hoped that it will render the use of ice in fever cases unnecessary. Kairin is also said to be less unpleasant to the stomach than quinine.

AT the Sanitary Congress in England, the other day, F. A. Russell said it was found that at a height about equal to that of the upper rooms in a high house, a drier climate prevailed than at lower levels, and with a daily range not much greater, and much less cold on the coldest and on foggy nights than down below. The practical conclusions seemed to be that invalids and delicate persons should generally be placed in high, sheltered situations, in the highest rooms of a house, and by no means on a ground floor; that every house ought to be built on arches, or thoroughly ventilated below, and raised on piers above the ground level; that no house or cottage which was not ventilated underneath, with damp-proof walls, should be considered habitable, and that in the country no house should be considered habitable of which the floor was on a level with or below the ground.

THE PUPILS' CORNER.

THIS department, which will consist of new, and in many cases original, declamations, poems, dialogues, music, and games, suitable for Friday afternoon exercises, will be under the editorial charge of CHARLES M. DRAKE. Teachers who have matter for the department, or suggestions in regard to it, are solicited to send communications to his address at Santa Paula, Ventura Co., Cal.

TALKS WITH MY BOYS.

Well, boys, are you ready for your monthly lesson? We had a little talk last month about Arithmetic, and suppose we talk a little about that again. Almost all boys who have good teachers like Arithmetic pretty well. They like to add and subtract, and if they know the multiplication tables real well, they like to multiply and divide. What do we learn Arithmetic for? I am afraid the biggest part of the answer must be "money."

Well, money is a good and useful thing, and we should prize it for the good we can do with it; so we will acknowledge the money value of Arithmetic to us, for, first, a knowledge of figures may keep us from being cheated, which is good; second, it may keep us from cheating others, and that is better still.

Now, our Arithmetics are not very good books, as a rule, for most pupils, because they are written by unpractical men, and men unused to teaching primary pupils. Arithmetics should be so made, that when you had done one

example you could do the next one without a bit of help from book or teacher. Arithmetics should never have the answers in them.

The most important thing you want to learn about any problem is to find the answer, and to be certain you have found the *right* answer, without book or teacher saying "It is right."

You should *know* that it is right, if the teacher even should tell you it is wrong. Teachers do not always know, and they often want the answers in the book so they can tell how to do the example; for they sometimes do like boys, and if dividing won't bring the answer, they multiply.

The hardest thing about an example is to read it correctly. Before trying an example you should read it over three or four times, so that you are sure you know what is wanted. Now, there are certain things the examples tell you. There are other things which tables and definitions tell you.

There are several things you can find out from what is told you.

Here is a statement:

A yard of cloth costs fifty cents, and a pound of cheese costs twenty-five cents. What can you tell me from that statement? You can tell me, first: what *both* would cost by addition.

2d. *How much more* one costs than the other, by subtracting.

3d. *How much* cheese a yard of cloth would buy, or *how much* cloth the cheese would buy, by comparison or dividing.

4th. *How many* yards of cloth or pounds of cheese a given sum of money would buy, by dividing.

5th. What any number of yards or pounds would cost *at* the above prices by multiplying what *one* yard or pound cost.

Now those words I have marked in italics you can remember, and associate them with what you have to do; and if you thoroughly learn those five statements, you will find it very much easier to know when to add, subtract, multiply or divide. Then I have another plan which helps me very much, and I am sure it would help you if you would try it: and that is to draw a picture of the example on your slate, and mark off the known parts. If the example is about a field, a board, a fence, or anything having length or area, *draw it*.

If it is about a room, imagine your school-room to be the room, and locate every one of the given lengths. If a box, make one by piling several books on top of each other, or make a little paper-box by cutting out a cross and folding it into a square.

I remember once while I was teaching in Nebraska, this habit of drawing saved me from getting fooled. A man gave me a problem to find the number of acres in a triangular field, 147 rds. one way, $83\frac{1}{2}$ rds. on the second side, and $63\frac{1}{2}$ rds. on the third side; and what was it worth at $\$7\frac{1}{2}$ an acre. I marked it hastily out, saw the point, and said: "Give me fifty cents and I'll pay for your land, and treat all hands to candy." Do you see the joke?

UNCLE CHARLEY.

STUDY OF AMERICAN FOREST TREES.*

PART I.—DIAGONAL.



1. A small tree growing on the coast ranges of California.
2. A tree of several varieties, some of them very handsome, some very valuable. Found in almost every State.
3. A tree of different varieties growing mostly in the Northern States and British Possessions, whose wood and bark are useful in many ways.
4. A small tree, exceedingly balsamiferous, found in Florida and West Indies.
5. A very common tree, large, and valuable for fuel, and also for turning purposes. Susceptible of a beautiful polish.

DIAGONAL.—A tree of several names ; strong, durable wood ; much used for railway ties.

PART II.—ACROSTIC.

1. A large tree at the North ; a shrub at the South. The wood white, hard, brittle.
2. A small tree growing along streams and in swamps. The wood much valued in the baking of bricks.
3. A small tree of Florida and West Indies, bearing a small edible fruit.
4. A tree of the Western States, the leaves of which yield a volatile oil, and the wood and roots of which are much prized for cabinet-making.
5. A tree growing throughout the United States, sometimes very large ; the wood white, soft, and of little value.
6. Three other familiar names. Generally a shrub, but sometimes 30 or 40 feet high. Wood exceedingly heavy, strong, and close-grained, and flowers very beautiful.
7. A Californian tree, quite large and compact, valuable wood, very odoriferous.
8. Another large Californian tree, sometimes 21 feet in circumference, growing near the coast.
9. A tree of many varieties, wood exceedingly tough and unwedgable, employed largely for hubs and water pipes. The bark of one kind medicinal.
10. A large tree of the Southern States, with wood which is white, soft, and easily worked.

The initials of the above ten trees give the name of one found through-

* We are indebted to the *New England Journal of Education* for this exercise ; one so interesting and valuable that we believe teachers can spend two or three hours very profitably thereon. In this State of flowers and trees, it will prove a good plan to have pupils bring specimens of the bark and wood of each tree referred to.—[Editor Journal.]

out the West Indies and Central America, with heavy, durable, close-grained wood, beautifully variegated with brown, white, and yellow, and abounding in a white, exceedingly poisonous sap.

PART III.—ENIGMATICAL TREES (partly phonetic).

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|--|--|
| 1. A poisonous serpent. | 27. Senior. |
| 2. A fish. | 28. Nice, trim. |
| 3. The voice of a quadruped. | 29. A garden-plant of an Eastern mountain. |
| 4. Another fish. | 30. A chest. |
| 5. The popular name of a State. | 31. An article of trimming. |
| 6. A grain. | 32. A tree which reminds of Socrates' fate. |
| 7. An animal and a shrub. | 33. A State, and the call of an animal. |
| 8. An indispensable article in the household. | 34. A color, and a boy's name. |
| 9. A garden vegetable. | 35. A body of water, and a fruit. |
| 10. An unattractive part of a domestic animal. | 36. A mineral. |
| 11. A reminder of Mount Lebanon. | 37. A month, and a small fruit. |
| 12. A large animal. | 38. Calcareous earth. |
| 13. Another garden vegetable. | 39. A month, and a stammering. |
| 14. A month, an animal, and an adjective. | 40. A girl's name. |
| 15. An Indian tribe and a fruit. | 41. A beautiful kind of cloth. |
| 16. An insect. | 42. A garden flower. |
| 17. A part of many animals. | 43. A tree to be dreaded. |
| 18. An emblem of power and strength. | 44. A color. |
| 19. A shell-fish. | 45. To sorrow, or to long for. |
| 20. A favorite English tree. | 46. A carpenter's tool. |
| 21. An emblem of sorrow. | 47. A domestic animal. |
| 22. A delicious drink. | 48. A tree which reminds one of the rivers of Babylon. |
| 23. An evil-sounding tree. | 49. A carpenter. |
| 24. A reminder of a traitor. | 50. A geographical name, and a fruit |
| 25. A portion of a constellation. | 51. An early flower. |
| 26. The tree we would choose for a rainy day. | 52. An acid plant. |
| | 53. A tropical fruit. |

MRS. C. W. CRAGIN.

A little boy was out with his big brother shooting. They came to a churchyard. There, in a tree, an owl was sitting. The boy with the gun shot it, to the horror of his little brother who exclaimed, "O, Tommy! What have you been and done? You have been and shot a cherrybum!"

Morse, who invented the telegraph, and Bell, the inventor of the telephone, both had deaf-mute wives, which fact leads a miserable fellow to point a moral: "Just see what a man can do when everything is quiet."

EXAMINATION QUESTIONS.*

GRAMMAR.

1. (a) Write a sentence containing a noun clause, and tell its use in the sentence.
(b) One containing a participial phrase.
(c) One containing a prepositional phrase.
2. (a) Give directions for forming the passive form of the verb ; (b) the progressive form.
(c) How do these forms differ as to meaning ?
3. (a) What parts of speech are inflected ?
(b) Why are they inflected ?
4. Define personal pronoun, mood, voice, comparison as applied to adjectives, and common noun.
5. Correct "From calling of names he proceeded to blows," and parse the first noun.
6. Write sentences using all the infinitive forms of "strike."
7. Analyze "If I were rich I think I would have my garden covered with an awning, so that it would be comfortable to work in," says Warner the humorist.
8. Write five sentences as follows :
(a) A complex sentence with clause of purpose.
(b) A compound sentence containing a clause of manner in one of its members.
(c) A simple sentence with an infinitive phrase for its subject.
(d) A complex sentence with a direct quotation used as an object clause.
(e) A compound sentence of two members ; the first member complex, with a clause of degree, and the second member complex, with a clause of time.
9. Conjugate the verb "must" in all its moods and tenses.
10. "I am never beaten until I know I am beaten," was a remark of Benedict's.
(a) What is the principal subject ?
(b) Parse "know," "Benedict's."

ARITHMETIC.

1. What is the value of a triangular piece of land, each of whose sides measures 40 rods, at $\frac{1}{2}$ cent per sq. ft ?
2. A bookseller bought \$300 worth of books at a discount of $33\frac{1}{3}$ per cent. from list prices, and sold them at the regular retail price, on 6 mos. time, money being worth 6 per cent. What per cent. profit did he make ?
3. Lafayette Square is 200x300 ft. What would be the cost of constructing a sidewalk, 4 ft. wide, entirely around the outside of the Square, 2 ft. from the fence, walk to be made of 2-inch plank, laid on 2 stringers, 3 in.x4 in., running lengthwise of the walk, allowing 1-20 for waste lumber selling at \$22 per M, and the carpenter receiving for nails and labor $\frac{3}{4}$ of a cent. per sq. ft. of walk laid ?
4. If a point on the rim of a circular saw whose diameter is 40 inches goes at the rate of $1\frac{1}{4}$ miles per minute, how many revolutions does the saw make per minute ?
5. A water-tank 3 ft. deep and 4 ft. square at the base is supplied with rain from a flat roof, 30 ft. long and 20 ft. wide. What depth of rain must fall to fill the tank ?
6. Suppose coal to be worth \$6 a ton, and the net cost of manufacturing coal-gas to be 15 per cent. of the price of coal. If a ton of coal yields 12,000 cubic feet of gas, what is the cost of gas per M feet ?
7. A collector received \$5.87 as his commission, at 5 per cent. on the amount of his collections for one day. If the debtors were allowed 10 per cent.

*The above set of questions was used at the recent regular semi-annual examination for Oakland City Certificates. As that city ranks second to none on the coast for the excellence of its schools and the high grade of its teachers, instructors elsewhere may find these questions both useful and interesting.—[Ed.]

discount from the face of their bills, what was the *total due* on the bills collected?

8. If I sell 22 rakes for as much money as I paid for 36, what per cent. is gained?

9. What is the cost of boards at \$20 per M, to make 50 boxes, each 7 ft. 10 inches long, 3 ft. 8 inches wide, and 2 ft. 6 in. high, no allowance being made for thickness of boards?

10. In the U. S. 20,000,000,000 matches are made yearly. If 50 matches are made from a cubic inch of wood, how many cords of wood are required for these matches, no allowance being made for waste?

BOOK-KEEPING.

1. Write a sight draft for \$1,000, using whatever names you please. On the books of each of the three parties make the proper journal entry.

2. Write a time draft under same conditions as above.

3. Open an account with a sewing machine, using debits and credits, and at the end of the month ascertain gain or loss.

4. Paid James Jones \$45 interest. Found a counterfeit \$10 piece in my cash. Sublet my store basement for \$75. Paid \$80 for new dog-cart for private use. Sold merchandise and real estate, and took in payment merchandise, real estate, cash, sight draft, and note. Journalize correctly.

5. What does the credit side of stock show? What does the debit side of balance show? What is the object in closing the ledger? Define bills payable, bills receivable. What does the excess on the credit of cash show?

COMPOSITION.

1. Would you employ any special methods to teach composition? If so, what are they, and how would you use them?

2. How would you secure accuracy of expression? How fluency?

3. Would you give any directions about paragraphing, and if so, what?

4. Would you give any instructions about the sentence, and, if so, what?

5. Write a descriptive composition of one page; subject, "A Landscape."

ALGEBRA.

1. Define simultaneous equations, quadratic equation, the degree of a term, exponent, and quantity.

2. Reduce to simple fraction.

$$\frac{a b}{a+b} - \frac{a^2}{a-b} + \frac{a(a^2+b^2)}{a^2-b^2}$$

3. Find cube root of

$$a^6 + 15 a^4 - 20 a^3 - 6 a_5 + 1 - 6 a + 15 a^2 \quad (\text{Write the work in full.})$$

4. What number of two digits is equal to 7 times the sum of its digits and to 21 times the difference of its digits?

5. Find value of x in

$$\frac{\sqrt{4x+2}}{4+\sqrt{x}} = \frac{4-\sqrt{x}}{\sqrt{x}}$$

THEORY AND PRACTICE.

1. On what qualities in a teacher does the good discipline of a school depend?

2. How would you prevent tardiness, unnecessary absence, and truancy?

3. Explain as to a class of young children, the term "porosity."

4. Name five books on *Teaching* you would recommend to a person ignorant of both the art and science of teaching.

5. Give three reasons why teachers in the lower grades should acquaint themselves with the higher branches of study.

OTHOGRAPHY.

- | | | | |
|------------------|------------------|------------------|------------------|
| 1. Porpoise. | 26. Halcyon. | 51. Exquisite. | 76. Menagerie. |
| 2. Nonpareil. | 27. Topaz. | 52. Surfeit. | 77. Arraign. |
| 3. Raillery. | 28. Prairie. | 53. Tranquility. | 78. Appoint. |
| 4. Jealousy. | 29. Lichen. | 54. Critique. | 79. Reverie. |
| 5. Xenophon. | 30. Prejudice. | 55. Decipher. | 80. Porcelain. |
| 6. Scheme. | 31. Mortgage. | 56. Teetotalism. | 81. Celery. |
| 7. Savannah. | 32. Bordeaux. | 57. Dilemma. | 82. Salary. |
| 8. Deleble. | 33. Aisle. | 58. Iniquity. | 83. Knead. |
| 9. Palace. | 34. Caprice. | 59. Wiseacre. | 84. Vying. |
| 10. Measles. | 35. Pamphlet. | 60. Dahlia. | 85. Glazier. |
| 11. Cologne. | 36. Duteous. | 61. Syringe. | 86. Hale. |
| 12. Alligator. | 37. Dyspepsia. | 62. Accommodate. | 87. Millinery. |
| 13. Synchronal. | 38. Centennial. | 63. Lyrical. | 88. Haul. |
| 14. Havoc. | 39. Cylindrical. | 64. Macerate. | 89. Quire. |
| 15. Papyrus. | 40. Caoutchouc. | 65. Fascinate. | 90. Ascent. |
| 19. Schedule. | 41. Pinnacle. | 66. Pursuit. | 91. Asylum. |
| 17. Leyden. | 42. Maintenance. | 67. Mettle. | 92. Monogram. |
| 18. Mimicking. | 43. Nuisance. | 68. Martial. | 93. Hue. |
| 19. Nebulæ. | 44. Raiment. | 69. Persuasion. | 94. Flue. |
| 20. Moneys. | 45. Mucilage. | 70. Exchequer. | 95. Comical. |
| 21. Changeable. | 46. Bilious. | 71. Hygiene. | 96. Draft. |
| 22. Inflammable. | 47. Strychnine. | 72. Sagacity. | 97. Bowlder. |
| 23. Rosette. | 48. Buoyancy. | 73. Gauge. | 98. Ague. |
| 24. Regime. | 49. Disguising. | 74. Exhilarate. | 99. Raleigh. |
| 25. Juiciness. | 50. Sirgeing. | 75. Pyramid. | 100. Des Moines. |

NEWS RECORD.

Foreign and Domestic.

California again speaks decidedly on the Chinese question. The right of laborers to come here from Hong Kong, even though born there, on the ground that that city is a part of the British empire, is emphatically denied in a decision just given by Justice Field, sitting with Judge Sawyer of the Federal Circuit Court in San Francisco. This flatly opposes the ruling made by Judges Lowell and Nelson at Boston a few weeks ago, and evidently carries out the intention of Congress.

In Europe the reports of impending complications between Russia and Germany continue.

In Tonquin the French are having better fortune of late. They have occupied some fortifications previously held by the Black Flags.

On Oct. 8th, the exposition building at Pittsburg, in which an exhibition was in progress, was totally destroyed by fire. The value of the building was placed at \$150,000, and the exhibitors lost about \$400,000. Among the relics destroyed was the first locomotive ever run in America.

More disastrous riots occurred during the week near Vienna, in Croatia. Many lives were lost and much property destroyed. The question will not be settled until the Croats can have their own language in the courts, and the Hungarian escutcheons taken down.

France still continues its army in Africa and China. In Algeria all is quiet, and in Tunis France holds what she has seized, making little perceptible effort to extend her occupation at any distance from her garrison. On the Congo her operations are limited to the dimensions of petty hostilities, and in Madagascar, while holding control over the sea coast, the French commanders are without sufficient troops to undertake the perilous task of penetrating the interior of that great island.

Bulgaria seems to be trying to keep European matters in turmoil. Prince Alexander is coquetting with Austria. Russia is suspicious, and rumors of military preparations and counter-preparations fill the air.

A terrible cyclone occurred in Santo Domingo, in which several villages along the coast were almost entirely demolished. It is also reported that over one hundred

sailors must have perished in the neighborhood, as the havoc in shipping caused by the cyclone was fearful.

Advices from Baron Nordenskjöld's expedition to Greenland have been received by way of Thurso, in the extreme north of Scotland. The Baron succeeded in penetrating 360 kilometres (about 223 miles) into the interior of northern Greenland. The inland topography of the island was almost entirely unknown, and the Baron expected to find a great island sea. But although he penetrated so far, and reached an elevation of 7,000 feet above the ocean, he found nothing but a great frozen desert, extending as far as the eye could see.

A fearful volcanic eruption took place on the island of Java and in the surrounding regions, beginning August 26, and continuing during several days. It will, in destruction of life and property, stand in history with similar occurrences in Lisbon, 1755, and in Calabria just one hundred years ago. This eruption began in the small volcanic island of Krakotoa, in the Straits of Sunda. The whole surface of sea and land surrounding was then convulsed by the current of molten lava underneath, which burst forth from one volcano and another on the island of Java and the surrounding islands, submerging some and suddenly evolving new ones from out of the depths of the ocean. The whole surface of the country now is completely changed. The loss of life is estimated at seventy-five thousand.

A cyclone occurred at Martinique on the 4th inst., by which eighteen vessels were wrecked.

A so-called "color line" decision was recently made in New York. A colored girl was refused admission to a public school in Brooklyn, and directed to attend a colored school. She applied for a mandamus to compel Principal Gallagher to admit her. Two points were principally argued—one, that the exclusion was in violation of the fourteenth amendment to the Constitution of the United States; and the other, that it was opposed to the Civil Rights Act of the State, passed in 1873. The Court of Appeals affirmed the decision, on the ground that the usual facilities for the education of a child were afforded in the colored schools.

Corea has departed from her traditional isolation so far as to send an embassy to this country.

The disease which was not recognized at first in Guaymas, Mazatlan and Hermosillo, Mexico, has turned out to be yellow fever in its worst form. Eighteen deaths occurred on Sunday, and the rate is increasing. The inhabitants of those towns are fleeing for their lives.

The ringing of the curfew bell was resumed at Stratford-on-Avon on the night of

September 11. One of the interesting features of this revival of an ancient custom is the fact that the curfew is rung upon the bell which was tolled at Shakespeare's funeral.

Educational.

England spends six times as much for wars actual and possible as for education, France fifteen times as much, and Russia eighty times as much. And even the United States, with its skeleton army, and its wash-tub navy, spends much more on them than on its public schools.

The National Educational Association, with its departments, completed its very successful sessions at Saratoga, New York, July 8, 9, 10, 11. Great credit is due President Tappan, Secretary Sheldon, Treasurer Calkins, and the officers of the departments, for their labors in preparing and executing the plans for this meeting of representative educators. The attendance was not large, but it was of a high character in its zeal and intelligence, and no better nor more satisfactory work has been done at any previous association.

The primary schools of France are now non-parochial in character. Under the influence of the councils in the large towns and cities, there is a tendency to favor an irreligious spirit, especially in the introduction of text-books on morals virulently hostile to Catholicism, and even to religion.—*School Education*.

Prof. O. V. Tousley, late superintendent, has been re-elected superintendent of the Minneapolis schools for the ensuing three years, at a salary of \$3,600 per annum—the pay to date from the actual resumption of service in his old position, or September 1, 1883, in case Prof. Tousley is able to close his official duties abroad by that time.

At the meeting of the Winona Board of Education, Prof. William F. Phelps was elected superintendent of schools in place of Superintendent McNaughton, resigned to go to Council Bluffs.

The Teachers' Institute for the Cherokee Nation convened July 1, and continued four days. Conductor, D. E. Saunders, of Kansas Normal College. There are 116 public schools in the Nation at present.

In a speech before an English high school the Bishop of Manchester condemned what he called the system of cram, and declared that the Americans had found it to be a false educational basis. "The Bishop's statement, we are sorry to say, will be news in some of our institutions of learning," says *Harper's Weekly*—which is a broad and altogether deserved intimation that our American schools are "cramming" much more than outsiders generally suppose.

The Board of Education of Cleveland have in consideration a measure to discontinue the services of women as principals of public schools.

Overwork in schools is not confined to this country; there are serious complaints of it in England. A gentleman wrote a letter a few weeks ago to the *Liverpool Mercury*, in which he criticized severely the schools of Liverpool for over teaching. The day's study, he says, begins at 7.45 A. M., and lasts until 4 P. M. Besides this, the evenings are supposed to be devoted to study at home, and there are no holidays on Saturday. The same complaint, in the same form, comes from Belgium and France. Contrasting the condition of things described with that in our own country, we can not see that there is much reason for the complaint here.

Miss Pingree, the superintendent of the Boston free kindergartens, has written a letter for the *Kindergarten Messenger*, which is an interesting review of what the Boston kindergartens have accomplished. There are at present thirty-one free kindergartens for poor children in and near Boston, carried on by the private charity of one lady. Four of these kindergartens began their work in 1877; during 1878 and 1879 fourteen others were started, and in 1880 the remaining thirteen.

Girard College, which has already grown to noble proportions, has quite recently entered upon a new branch of educational work. It is training its boys to fit them to become mechanics and manufacturers.

The expense imposed upon society to protect itself against a few thousand criminals, most of whom were made such through the neglect of society to take care of their education when young, is one of the heaviest of the public burdens. *In the City of New York it is fifty per cent. more than the whole cost of the public schools.*—*Dexter A. Hawkins.*

Dr. McCosh has presented a proposition to the trustees of Princeton to start a school of Philosophy. He wishes to have this department in charge of three other professors beside himself, and asks for \$150,000 in order to carry out the scheme.

The Trustees of the College of the City of N. Y. met Sept. 18. Trustee Belden presented to the college a one-thousand-dollar bond, the interest on which is to be devoted to procuring medals, which will be awarded as prizes in mathematics. The Board of Estimate and Apportionment was asked for an appropriation of \$135,000 for the maintenance of the college during the coming year. H. P. Johnson was appointed Professor of Modern History at a salary of \$4,500 a year. He is the author of several historical works. David Cherbuliez was given a tutorship at a salary of \$1,000.

The appropriations for public school purposes in Louisiana have been entirely exhausted, and as a consequence, every public school in the State has been closed. The probabilities are that they will remain closed until next April.

The people of Texas, by recent vote, have amended their constitution and school laws, which will result in a six months' country district school throughout the State, a State university, a system of summer institutes, and a graded public school in every considerable town.

From the Yonkers, N. Y., *Statesman* we take the following:

"As will be seen by the proceedings of the Board of Education, in another column, on Monday evening Andrew J. Rickoff resigned the position of Superintendent of our Public Schools, and L. W. Day, of Cleveland, Ohio, was elected to succeed him. This change will cause general regret on the part of those who have watched the steady improvement of the schools under Mr. Rickoff's direction. The reasons which compelled his resignation are fully set forth in the report presented to the Board on Monday night, and which we publish entire."

This reason was that by Mr. Rickoff's contract with D. Appleton & Co., he was unable to attend to the duties of the superintendency and his book work at the same time. We hope the educational field will not lose his work permanently. He is a man of great intellectual calibre—one who cannot well be spared. What an acquisition a few such men would be to this Coast! But with the knowledge of Gilman's and Swinton's experience before them, we are not likely to get any such, in this generation, at least.

The *Schoolmaster* in a recent issue expressed the opinion that the election of Mr. Bicknell, as President of the National Educational Association, meant an unusually successful meeting in 1884. Facts already justify that opinion. The entire standing indebtedness of the Association has been paid off. The volume of the last proceedings is in process of publication, and Mr. Bicknell is confident of securing enough new life-members to pay the expense of publication without anticipating next year's receipts.

It may not be generally known that Krupp, the "cannon king,"—the celebrated manufacturer of the guns known by his name—has his own school, in Essen, for the children of his employees. It is what is called in Germany a "simultaneous school"; that is, a school where children of different religious denominations are taught in common; and consists of 16 classes or courses, 2 grades of 8 years each; with 1 principal, 12 male, and 4 female teachers. The school-rooms, all of which are beautifully fitted up, have been arranged

with every regard to sanitary requirements, and are supplied with the best school apparatus; and a botanical garden for school purposes was started last year.

It will surprise some people—pretty old people too—to learn that Webster's "Elementary Spelling Book" is still a standard publication, and that it is in use in common schools throughout the country by millions of little learners to-day. The present publishers of the book are D. Appleton & Co., and it is said that the demand exceeds 1,000,000 copies a year.

Columbus, Ohio, has just established a training school for teachers, in which it can do something to implant those fundamental ideas in girls before they begin to teach, which it takes them at least two years to obtain afterwards, but without which they are well nigh worthless as teachers.

It is estimated that more than 1,200 teachers' institutes have been held in the United States in the past summer, enrolling nearly 140,000 teachers. Who can estimate the gain in knowledge of matter and methods of instruction, and the new inspirations which this implies?

Chicago employs 1,019 teachers, 976 of whom are women. Of the 43 men, 27 are principals. All primary teachers receive from \$400 to \$700 per year. Grammar grade teachers are paid \$50 per year more than the primary teachers.

An important event of the present week has been the laying of the corner-stone for the new Manual Training School in Chicago. This ceremony took place on Monday afternoon under the direction of Mr. E. W. Blatchford, president of the Board of Trustees. The building is to stand on the northwest corner of Michigan avenue and Twelfth street. It will be four stories in height and will cost about \$60,000.

The Commercial Club of Chicago originated this enterprise, and set apart \$100,000 to pay for this building, and to furnish it with steam-power, lathes, and all necessary appliances for the course of instruction.

Maine abolished capital punishment in 1874, but the friends of the gallows have agitated every year for the restoration of the old method, and the legislature has just passed a bill to hang murderers. Iowa tried the humane system for a year or two, but in 1878 went back to the gallows. It is very hard for one State to try the experiment of abolishing capital punishment alone, in a country where there is so general communication as in the United States.

Personal.

Prof. Wm. Swinton, the well-known writer of school text-books, is about to begin the publication of a weekly, to be called *Swin-*

ton's Story-Teller, and consisting exclusively of choicest, complete tales—from four to six in each issue. He has already enlisted the pens of many of the star story-writers of the United States and England. In connection with several others, and under the firm name of Swinton, Barnes & Swinton, there will soon be issued a series of books, under the general title of "Swinton's Boys' and Girls' Library," which will comprise cheap and neat editions of all the great juvenile classics. They have also in preparation a work entitled "Swinton's Information for the People," which will emulate the famous series of the Chambers Brothers, in giving reading on science and history, and cognate subjects in a form sure to reach the multitude of American readers.

"From the first," says Mr. Gladstone, "I have watched the temperance question with great interest; but I am bound to say that no phase of it ever yielded me so much satisfaction as the sight of large numbers of ministers of all denominations, and of course, still larger numbers of members of perhaps all the churches, wearing the blue ribbon. It is an exceedingly gratifying circumstance, and speaks well for the future."

The death of Tourgueneff leaves vacant one of the first places in literature; for the Russian novelist belonged to that small class of writers—including Victor Hugo, Tennyson, and Bjornson—who are accepted as interpreters of their race and country to the world at large.

Mr. Delaunay, a scientist, predicted in a memoir presented to the French Academy of Sciences, in 1881, the catastrophe at Java, making a mistake of only two days. In the same paper he stated that another and more terrific convulsion will occur in the same place in 1886.

H. H. Bancroft, the Californian historian of Western North and Central America, has gone to Mexico and Central America, to study for a year documents and antiquities for forthcoming volumes of his great work.

Complimentary telegrams passed between President Arthur and the Emperor and Empress of Brazil, on the occasion of the completion of the South American telegraph line.

The original name of Mr. Villard, President of the North Pacific R. R., is Heinrich Hilgard. He assumed "Villard" as a nom de plume while writing western letters to a New York paper. Hilgard left Germany during the stormy times of 1848, under political censure, and came to New York, where he married the daughter of William Lloyd Garrison, the original anti-slavery agitator. Mr. Villard has a cousin in our State University in the person of one of its most eminent professors, E. W. Hilgard, who is at the head of the College of Agriculture.

EDUCATIONAL INTELLIGENCE.

STATE OF NEVADA.—The salaries paid, per annum, to the principals of public schools in some of the leading towns of Nevada are as follows :

Carson.....	\$2,000
Reno.....	1,800
Eureka.....	1,800
Austin.....	1,500
Virginia, 4th ward.....	1,500
Virginia, 1st ward.....	1,400
Gold Hill.....	1,400
Battle Mountain.....	1,250
Dayton.....	1,250
Silver City.....	1,250
Winnemucca.....	1,200
Sutro.....	1,000

The salary which for thirteen years in Gold Hill has been \$1,800, has lately been reduced to \$1,400 ; in Reno the salary of the principal this year has been raised from \$1,200 to \$1,800.

Prof. S. J. Farrington, formerly in the Gold Hill High School, has been elected President of the State University at Elko. This is a selection eminently fit to be made.

The schools of the State of Nevada, since the beginning of Prof. Young's administration, give evidence of renewed activity and improvement. Seconded by such teachers as Howe, Gray, Swift, Farrington, and others, they will soon compare favorably with any in the Union.

MONTEREY COUNTY.—Jack's School District (Chualar) is bound to have a new school house. They voted for a tax of \$600 for that purpose on the 4th instant, and there was not one dissenting vote cast.

Several months ago the Salinas City Board of School Trustees caused a special election to be held, at which the people voted to tax themselves \$5,000 to provide additional school accommodations. The returns of the election were made in due form to the Board of Supervisors, who were requested to levy the special tax that had been voted, the same as was the custom in regard to other school districts. The Supervisors refused to make the levy on the ground of having no jurisdiction, claiming that the

City School Trustees were the proper parties to levy the tax, and not the Supervisors. The School Trustees, by their attorneys, Messrs. Geil & Morehouse, have now commenced a mandamus suit in the Superior Court, to compel the Board of Supervisors to levy the tax. We trust the matter will be speedily determined, as all the school-rooms are overcrowded and additional accommodations are greatly needed.—*Index.*

The Teachers' Institute of Monterey County met in the M. E. Church, Salinas, at 9.30 A. M., Wednesday, Sept. 26th, 1883.

Superintendent Smeltzer called the meeting to order. An organization was effected by the election of officers as follows : Vice Presidents, J. A. Riley, of Monterey and J. B. Hickman, of Springfield ; Secretary, P. E. Colbert, of Salinas ; Assistant Secretaries, Miss Mary Gordon, of Monterey, and Miss Fannie Morey, of Mountain.

President M. J. Smeltzer then read a very able address, which was listened to with marked attention and warmly applauded.

Miss Etta Lloyd favored the Institute with a reading entitled "Institute Morning."

Next followed a discussion on "School Libraries," which was introduced by G. W. Hursh.

J. B. Hickman opened the subject of "Mental Arithmetic," and was followed on the same subject by S. M. Shearer, M. J. Smeltzer, G. W. Hursh, Hamilton Wallace, and P. E. Colbert.

Miss Rachel Miller and Superintendent Smeltzer spoke of the use of diacritical marks, and gave their methods of teaching the same.

Mental Arithmetic was taken up by S. M. Shearer, who was followed by Hamilton Wallace, State Superintendent Welcker, and S. L. Cutter.

J. B. Hickman took a class in Geography and illustrated his method of teaching that branch of study.

After some general remarks on "Written Arithmetic," by George Furlong and others, the remainder of the afternoon was used in

answering questions from the question-box.

Prof. H. B. Norton addressed the Institute on "Elementary Entomology."

Mr. Housh gave his method of teaching spelling and the use of diacritical marks, by taking the teachers present as a class.

SAN FRANCISCO.—Director Melcher, of the Board of Education of this city, spent several days in visiting the schools of San Jose a few weeks ago. He speaks in the highest terms of the efficiency of that department, commends the class-work and the general supervision, and thinks the course of study well-graded and thoroughly carried out. The condition of the department reflects the highest credit on Supt. James G. Kennedy, to whose carefully devised plans and active supervision the department owes its superiority. Director Melcher finds the success of the San Jose schools due to this one thing—close inspection and the constant influence of the superintendent on every teacher in the Department. In the High School Mr. Melcher found a splendid business department, also working finely under the direct management of the principal, Prof. T. E. Kennedy.

W. W. Stone has been elected to the vacancy in the Board of Examiners caused by the death of Mr. London.

Prof. A. Herbst, the able and popular principal of the South Cosmopolitan Grammar School, has been seriously ill for nearly a month past. He is now convalescing. Under his administration corporal punishment has been reduced to a minimum in his school. For the month of July this year, in a school of 1,100 pupils, there was not a single case.

KINDERGARTEN ART AND WORK SCHOOL.—The importance of connecting educationally manual exercise, tending to train the pupil's senses and perceptions, with primary and other schools, as a means to a higher as well as more complete and practical culture, is now very generally admitted. And such instructive manual training has already become an important part of the instruction imparted in thousands of institutions in Prussia, Austria, Sweden, Denmark, and France, under the name of school-gardens,

and in manual and technical training-schools in the United States.

The instructive manual training found in Froebel's Kindergarten system is a proper means to such end.

Miss Emma Marwedel, principal of the Pacific Kindergarten Normal School, three months ago, organized a free class of boys at Children's Hall, corner of Sansome and Pacific Streets, in this city. She was assisted in the work by her Normal students and four lads of her elementary department, it being designed as the foundation of a Free Kindergarten Art and Work School for children of both sexes, from seven to fourteen years of age.

Dr. A. H. McDonald kindly gave and fitted up a room in the hall above mentioned; also made a generous subscription to aid in purchasing the necessary Kindergarten material; and it is hoped that other public-spirited men and dealers in such materials will make some further contributions.

The Froebel System is a most valuable initiation into the principles of science and art. Geometry and trigonometry are practically applied, leading the child from self-conception to original reconstruction, developing methodically every individual creative faculty.

Daily experience in the later practical and theoretical development of youth, proves, furthermore, most disastrously, that early neglect of the child's perceptive faculties, free productive powers, thoughts, and responsibilities, weakens that reason and will-power which should give necessary depth and firmness to the character of the coming man in the child.

Work is the foundation of all life. Its aim is wisdom; happiness its reward.

The school has been in operation for at least three months, attended by nearly fifty girls and boys, both being equally talented.

Unfortunately the summer season has kept out many boys.

Miss Marwedel hopes that in time one afternoon weekly may be granted for similar instruction in our public schools.

STANISLAUS COUNTY.—We are indebted to Supt. W. S. Chase for the following interesting summary of school statistics for his county, for the year ending June 30th, 1883.

No. schools.....	57
No. grammar grades.....	22
No. primary grades.....	35
Boys attending school.....	944
Girls attending school.....	937

1881

Av. number belonging.....	1,218
Av. daily attendance.....	1,098
Per cent.....	90

No. pupils in High School.....	39
No. pupils in grammar grade.....	488
No. pupils in primary grade.....	1,354

1,881

Av. length of school term.....	7½
Av. length taught by one teacher.....	6½
Av. wages per month paid teacher..	\$68.20

Amount paid teachers.....	\$29,076.58
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Amount paid for incidentals.....	3,406.44
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Amount paid for libraries.....	592.08
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Amount paid for apparatus.....	1,134.68
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Amount paid for school-houses..	2,888.05
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Total\$37,097.83

OREGON.—Ex-Supt. Bolander, of California, has resumed teaching by accepting a leading position in the Portland High School.

The schools of Portland have reopened for the Fall term of '83, with an increased attendance. Under the intelligent supervision of Supt. T. H. Crawford, the Portland School Department compares favorably with those of the leading cities in the Union.

SANTA CRUZ.—Prof. A. H. Randall, whose removal from the principalship of the Stockton High School for political reasons, caused such intense excitement in that city a short time ago, has been elected to the principalship of the High School at Santa Cruz. Prof. Randall was principal at Stockton for ten or eleven years, and his management gave satisfaction to all except the political substratum, who, coming into power a short time ago, turned out six leading teachers of that city to make room for some of their friends. After turning out Prof. Randall, they found they had not a friend fit to succeed him; so they were absolutely forced to elect in his place a gentleman of the same political faith, and one eminently worthy both as scholar and gentleman, Prof. S. D. Waterman.

Under his energetic administration we have no doubt the success of the Stockton High School is as assured as in the past.

LOS ANGELES.—The State Normal School in this city is steadily increasing in numbers—141 now in actual attendance—and Prof. More's administration is winning the approval of the entire community.

The schools of the City of Los Angeles are in an overcrowded condition. One new school-house to be finished in December will give some relief; but at least, two more new buildings are imperatively needed. We fear the present Board of Education lacks both progressiveness and judgment. They have not yet filled the vacancy in the High School principalship created by the promotion of Prof. Smith to the superintendency, and that school at last accounts was running itself. If the people of Los Angeles commit the grave error of letting their High School run down, expecting to use the Normal as a High school, they will do a serious injury to the children with whose education they are entrusted, and to the State institution designed to accommodate, for a special end, the entire southern half of California.

We had given the Los Angeles people credit for enterprise, progressiveness, and intelligence. We hope we were not mistaken.

ALAMEDA.—Some months ago we mentioned the fact that the Oakland High School was to have a telescope and place therefor, both the donation of a citizen of that city. This gift turns out more beneficent than we then supposed. The telescope cost \$3000, and is a very fine glass with an eight-inch aperture. It is mounted in a building constructed for it at a cost of over \$7000. Both are the gift of Mr. Chabot, and the observatory will bear his name.

The telescope has arrived from the East, and the work of mounting the instrument has begun under the direction of Thomas E. Frazer, of the Lick Observatory, assisted by Superintendent of Schools Gilson, and Director Jordan.

The President and Faculty of the State University are working to bring the High Schools of the State into more harmonious relations with the University. At the next

meeting of the State Association of teachers, in December next, they will probably call a conference of High School teachers and University professors, to deliberate on the ways and means of gaining this desirable end.

NAPA Co.—The most interesting event of the past month was the annual Institute. Supt. J. L. Shearer presided, F. G. Huskey and G. W. Weeks were elected Vice-Presidents, and Miss M. C. Breckenfeldt, Secretary.

The committees being announced, Miss E. Gyte read an essay entitled, "A Glance at School-work," which showed the lady had studied her subject. Miss Spaulding then read a paper on the subject of "Fractions," Mr. H. Coltrin being called for read an essay on the same subject. He was followed by T. H. McDonald on blackboard work, illustrating the method of dividing a fraction by a fraction. Miss Helen Buckley read a paper on "School Recitations," in which she illustrated the difference between instruction and recitation. Her theme was an interesting one, and it was handled in a clear, logical manner. Miss' Ettie Miller read a paper on "Education." She referred to the educational systems of ancient Greece and China, and said their systems were not calculated to develop the reasoning faculties. She gave an amusing account of how we used to spell and read in our youth. S. Shaw illustrated how he

would teach fractions to beginners. Eighth grade work was considered by Miss Wilson. Miss Stella Ames read a paper on "Seventh Grade Work." Song, by Miss Kellett; Grammar, by Miss Annie Derry; Primary Grammar, by Mrs. Flora Grant; Primary Reading, by Miss Emily Aniser. Wednesday evening Prof. Welcker, State Superintendent of Public Instruction, lectured at the Baptist church. His subject was "The Dangers of Peace." On Thursday, the exercises opened with "Class Exercise in Reading," by Mary Teel. This was unusually entertaining. "Sixth Grade Exercises," Miss Stiltz. An essay on "School Government," by Miss Helen Buckley, followed by a paper on the same subject by Mrs. Bennett. This interesting essay was followed by papers on the same subject by Misses J. Rutherford and Maggie Macken, Misses Laura Walden and Julia Hogan. The inevitable subject of corporal punishment came up, in which Mr. Chapman, Mr. Huskey, Miss Gregory, Messrs. Weeks, McDonald and others took part. After recess Mrs. M. Mitchell read a paper on "Theory and Practice of Teaching." This was followed by a paper on "Natural History," by G. W. Weeks. The afternoon session was devoted to Music, "Normal Methods of Teaching," by Prof. Chas. Allen. "Language" was next considered by O. W. Grove. He was followed by Miss Grace Jewell, with an essay "Composition and Recitation Exercises."

BOOK NOTICES.

THE BUSINESS MAN'S COMMERCIAL LAW AND BUSINESS FORMS COMBINED. Buffalo, N. Y. : J. C. Bryant. Price, \$2.00

This is the most complete manual we have seen on this subject. As it has been prepared by one of the most eminent business college principals in the country, it has all the weight of experience and authority. We are satisfied it will pay teachers to examine it.

A PHYSICIAN'S SERMON TO YOUNG MEN.—By Dr. W. Pratt. New York : M. L. Holbrook, Publisher. Price, 25 cents.

The little book before us, of fewer than 50 pages, is intended to be put into the hands of young men by fathers who are unwilling or incapable of discharging a father's duty in this respect; and as not one father in ten is, we believe, ready to do what is right by his boys himself, it is well that such a book

as this should be available, especially as it gives some information which a physician is able to give with some authority. We commend it to the attention of fathers and sons alike.

MODERN SPANISH READINGS. By William S. Knapp, Professor in Yale College. Boston: Ginn, Heath & Co. Price, \$1.65.

The favorable opinion expressed in the JOURNAL of Prof. Knapp's Spanish Grammar, issued a year ago, has been justified by its popularity throughout the country. The present volume is intended for a companion book, and is well adapted for that purpose. It includes a number of prose readings, to which are appended a body of notes and etymological vocabulary. These readings, each complete in itself, fairly represent the language of contemporary Spain. The language throughout is such as one hears in actual life in good society, or may read in the journal, the review, or the latest work of fiction in Spain. This book is a decided improvement on its predecessors in this respect.

A HISTORY OF THE NEW YORK STATE TEACHERS' ASSOCIATION, with Sketches of its Prominent Educators. By Hyland C. Kirk. New York: E. L. Kellogg & Co. Price, fifty cents.

The History contains many biographical sketches of distinguished superintendents, conductors, principals, presidents, and teachers, many of them accompanied by excellent portraits of their subjects, and no one who has contributed largely to educational advancement in the State has failed to secure recognition.

The volume is in handy octavo form, containing 196 pages of closely set breviers, with perfectly clear impression, upon fine quality paper, bound strongly within taste fully ornamented covers.

Still another noteworthy addition to our working books in English literature is W. J. Rolfe's school edition of "The Lady of the Lake," published by James R. Osgood & Co., Boston. San Francisco: A. L. Bancroft & Co.

It is in size, print and binding uniform with Rolfe's English Classics; the poem is carefully and admirably annotated, as are all Prof. Rolfe's works.

The texts of the various editions of this poem have been carefully examined and compared, and we should not be surprised if the text Prof. Rolfe offers us prove really the purest and most authoritative that has yet appeared. For school use we strongly favor this edition. Price per copy, 75 cts.

THE HOOSIER SCHOOL-BOY. By Edward Eggleston, author of the "The Hoosier Schoolmaster," etc. With full page illustrations. New York: Charles Scribner's Sons. San Francisco: A. L. Bancroft & Co. Price, \$1.00

Those who have read and enjoyed—perhaps recognized—"The Hoosier Schoolmaster," must have caught just a glimpse of the schoolboy in that inimitable book. We are here presented with a full-page portrait of him. Dr. Eggleston has written much and well, but we doubt if anything from his pen will live longer, or come home nearer the American reader, than the two books here referred to.

Teachers who are on the look-out for books suitable to add to their school libraries, will here find one, interesting alike to old and young, and from every point of view absolutely unexceptionable.

TWO SHAKESPEARE EXAMINATIONS, with some remarks on the Class-room Study of Shakespeare. By Wm. Taylor Thom, Professor of English Literature in Hollin's Institute, Virginia. Boston: Ginn, Heath & Co.

This book possesses a double merit. It is a complete study on two Shakespearean plays—plays that form a part of the preparation in literature for the University; but especially, because the author gives us in detail his method of teaching the subject, the examinations thereon, and his pupils' answers to the questions propounded.

The book will be a great help to every teacher of English literature.

THE CUMULATIVE METHOD IN GERMAN. By Adolph Dreyspring. New York: D. Appleton & Co. San Francisco: James T. White & Co.

The method on which this book is constructed has the merit of novelty, and seems well worth trying by those who are teaching German or trying to learn that language. Carefully selecting the 700 words (most commonly used in conversation) with the

necessary adjectives, etc., the author presents a series of progressive lessons, well calculated to advance the student. Each word necessarily reappears in the course of the lessons, from twenty to thirty times, so its full meaning is brought out in all its varied forms. The plan is new and worth trying.

A DRILL-BOOK IN ALGEBRA. By M. L. Perrin, A. M. Philadelphia: J. B. Lippincott & Co. San Francisco: J. A. Hoffman. Price, 75 cents.

This book is undoubtedly the outcome of the success of practice books on other subjects. In mathematics, especially, constant practice is the essential condition of success.

In this book, the problems are arranged in the order of subjects usually adopted in text-books, and are divided into chapters for convenience, and as the subject of algebra naturally divides itself. In many of these respects, it is believed, this collection differs from any work in use in this country.

We believe the book will prove a useful adjunct to the teachers' working library.

A PRIMER OF AMERICAN LITERATURE. By Charles F. Richardson. Twenty-first Thousand. Boston: Houghton, Mifflin & Co. San Francisco: A. L. Bancroft & Co. Price, 35 cents.

An earlier edition of this very useful and popular little book was reviewed in the *JOURNAL* at the time of original publication. This edition has been improved in some respects, and embellished with twelve portraits of eminent American writers. It is a complete manual of our literature, and in many respects better adapted for work than bulkier manuals.

HOW TO WRITE ENGLISH. By A. Arthur Reade, editor of *Study and Stimulants*. Third edition. Philadelphia: J. B. Lippincott & Co. San Francisco: J. A. Hoffman.

This is a well-written book on English composition. It contains chapters on the laws of writing, instructions how to secure a copious vocabulary, on the importance of taking pains in the formation of style, on the study of the best models of English, on simplicity of style, on brevity, on purity in style, on energy, illustrations of the use of the parts of speech, on punctuation, on

the importance of paraphrasing, plan of essays, and on the laws to be observed in controversy.

It is an indispensable book for the teacher; and students who aim to become ready writers should study it carefully.

MRS. GILPIN'S FRUGALITIES. By Miss Susan Anna Brown. New York: Chas. Scribner's Sons. San Francisco: A. L. Bancroft & Co.

This is a unique little book; but we can imagine none more timely or appropriate for this wasteful land and generation. We are given by Miss Brown 200 ways of using remnants of food in the preparation of new and appetizing dishes. We do not commend this as a school text-book, but every teacher should have a copy and study it—our female teachers so that they may know how to save—the other sex so that they may know better how to chide their wives or sisters, or cousins or aunts, for not knowing how to save.

A PLEA FOR SPOKEN LANGUAGE: Condensed from lectures delivered throughout the United States, by James Murdock, instructor of elocution. Published by Van Antwerp, Bragg & Co., Cincinnati and New York.

In this volume Prof. Murdock claims that our language is underrated as a vehicle for the expression of thought; that teachers of reading and elocution are too much inclined to base their instruction upon mere imitation, thus losing sight of the important fact that it should be founded upon scientific principles. The whole subject is treated in a manner that cannot fail to please and instruct those who are interested in teaching reading. Teachers will find it to be a helpful book; one which treats largely of those fundamental principles upon which the art of reading successfully depends. It is to be followed by a book of elementary drill exercises.

A TEXT-BOOK ON INORGANIC CHEMISTRY. By Prof. Victor von Richter. University of Breslau. Authorized translation of third German edition by Edgar F. Smith, A. M., Ph. D., Prof. of Chemistry in Wittenberg College, Springfield, Ohio. Philadelphia: P. Blakiston, Sons & Company, 1012 Walnut Street.

This book has been received with favor abroad, and its author claims for it special

merit in that it brings out prominently the relations existing between fact and theory. The methods are inductive as far as the circumstances of the case admit, and the illustrations and experiments well chosen. The author claims as a new feature "the introduction of the thermo-chemical phenomena, briefly presented in the individual groups of the elements and in separate chapters, together with the chemical affinity relations and the law of periodicity." Price, \$2.00.

FROM MESSRS. HOUGHTON, MIFFLIN & CO., through the Bancrofts, we have received five additional parts of their admirable Riverside Literature Series; one including Dr. Holmes's "Grandmother's Story" and other poems, and the other four contain Hawthorne's "True Stories" and "Biographical Stories." These books are well adapted for supplementary reading; in fact, we know of nothing in the whole range of English literature that can well surpass them for this purpose. For 15 cents the learner may become well acquainted with classic American literature; and we feel, while examining the books, that no amount of success from a business point of view can adequately recompense the publishers for a great boon conferred on the learners of our mother tongue.

The attention of teachers of both district and graded schools is directed to this series. An examination will be followed by introduction and use.

Our commendation of the "Riverside Series" must be extended to the first volume of a "Classic Series" published by Roberts Bros., Boston, and for sale by A. L. Bancroft & Co. This series is to include a selection of the foremost works of all literatures, and if the succeeding volumes resemble the one before us, no school library can well afford to be without it.

The first volume contains "The Lady of the Lake," "Marmion," and the "Lay of the Last Minstrel." It is bound with the good taste which these publishers always show, is of a very convenient size, clearly printed, and sold at \$1.00.

"Boil it down" is time-honored advice to all who intend putting their thoughts on

paper. The editors of THE TEACHERS' AND STUDENTS' LIBRARY have succeeded so well in condensation that they have placed before the teacher a complete *cyclopedia* in one octavo volume of 532 pages. It contains, besides the common branches, the sciences, school law, civil government, mythology, parliamentary usages, general literature, etc. It is published by T. S. Denison, Chicago. Price, only \$3.00.

LITERARY NOTES.

Mr. Charles Reade's new story, to appear in *Harper's Weekly*, is said to be a more elaborate and important novel than any he has written for years.

The *Century* announces a paper on Queen Victoria, by Mrs. Oliphant, for the November number. St. Nicholas is to have a serial story by Capt. Mayne Reid.

Messrs. Appleton & Co. will issue shortly an edition of "Cobbett's English Grammar," edited by Alfred Ayres, author of "The Verbalist." Cobbett's Grammar is known to be the one book on English Grammar that is amusing and readable.

Messrs. James R. Osgood & Co. have just published a very pretty little pamphlet, with the price at ten cents, containing Col. George E. Waring's famous horse story, "Vix," which the *London Spectator*, characterized as "genuinely pathetic."

A novel to be called *Judith Shakespeare, her Love Affairs, and other Adventures*, by William Black, is shortly to begin in *Harper's Magazine*. The scene is laid in Stratford-on-Avon.

The Riverside Edition of Mr. Richard Grant White's edition of Shakespeare is all that was promised, and is a remarkably good edition for the price.

The first issue of the English Illustrated Magazine has among its contributors Swinburne, Grant Allen, William Black, Prof. Huxley, Comyns Carr, and Charlotte Yonge. Alma Tadema furnishes the frontispiece.

Lippincott's Magazine for November contains among other valuable papers Henry Irving, a sketch and a criticism, by Robert Laird Collier, with illustrations; Curiosities of Instinct, by Felix L. Oswald; On the Mountain-Trails of Montana, by W. A. Baillie-Grohman; Black Spirits and White, a story by Sophie Swett; Out After Tiger, an Indian sketch, by Phil Robinson; Two Chinese Wonders, by Charles Wood.

The leading articles in *The Popular Science Monthly* for November are: The Greek Question, Professor Josiah P. Cooke; A Plea for Pure Science, by Professor H. A. Rowland; The Remedies of Nature—The Alcohol Habit, by Felix L. Oswald, M. D.; Remarks on the Influence of Science, by Leslie Stephen; The Utility of School-Recesses, by Joseph Carter.

THE PACIFIC SCHOOL JOURNAL.

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No. 11

THE MODOC SCHOOL.

CHAPTER VII.

FARMING.

EVERY American likes to own a piece of ground, to cultivate a portion of his native soil. Some get land-hungry, and buy ten times as much as they can care for properly; others spend hundreds of dollars annually in raising fruit or vegetables, which ought to cost them a less number of dimes than they spend dollars.

People who have to make a living, wholly, or in part, from the soil, can not afford these luxuries. They want a home, and a modest return for the labor and money expended. The amount which an acre of good soil, with a reasonable amount of water, will produce, if properly cared for, is something wonderful, especially in California.

The number of acres is not so much as the cultivation. A hundred acres may not keep one man, while an acre may support another in comfort.

Each of the pupils at the Modoc school was given a quarter acre of ground to care for, and two trees each, of various kinds of fruit. Spades, hoes, etc., were common property, and were expected to be left in order by the one using them last. How few people using tools know how to take proper care of them!

If a pupil wanted the horse and cart, Glen was always willing to allow them to be taken, but the pupil must catch and harness the horse himself, oil the wheels, clean the horse, harness, and cart on his return, and leave everything in as good order as he found it. Many a farmer pays from one hundred to two hundred and fifty dollars for a wagon, and runs it with little or no care for a few years, and it is practically worn out. The repairs cost more than the interest and wear of a new wagon. Harnesses that should last for

twenty years, from want of oil, or what is just about as bad, from improper oiling, crack and break to pieces in one-fourth that time.

As a knowledge of agriculture and trees is useful to every one, Glen paid especial attention to farming. He visited the best and most successful farmers, and by means of question and observation he learned minutely their methods of procedure. General statements, such as are to be found in agricultural papers, are good in their way, but Glen wanted to know exact dates and time: just how long a certain soil should be left between the plow and the harrow; how many pounds of seed were sown to the acre; how deep the seed was put in, and whether plowed in or harrowed under. These and hundreds of other questions were asked of dozens of farmers; and their answers carefully noted and compared. Allowances were made for climatic differences, and condition of ground. With these facts as a foundation, Glen tried to teach the girls as well as the boys the best methods of putting in and caring for all the principal crops.

Farmers' boys, born and brought up on the farm, seldom learn as much in a dozen years as these pupils did in two seasons. And why? The meaning of what they saw done, what was to be the result, and what did happen, were all made clear to them. A piece of adobe ground that had been plowed and left too long before harrowing showed the pupils the different culture such ground and a sandy soil needed. They saw that sometimes early and sometimes late-sowed grain did the best according to the kind of season; but Glen could give them no rules for telling what the season would be. The longer one lives in California, the less he thinks he knows about coming seasons. We can only praise the bridge when we are safely over it.

The main crops of the farm, such as wheat, barley, corn, and beans, the boys helped the farm hands to put in; but the garden vegetables, berries, etc. were private ventures. The proceeds were purchased by Glen, or disposed of to a peddler who came twice a week after melons, grapes, fruit, etc.; and the boys watched the growth of their garden stuff more closely than ever such things were watched before at Cañada Grande.

Sometimes it seemed to the impatient young farmers that the whole of animated nature had conspired to ruin their gardens. Worms and beetles, gophers and squirrels, fowls and tramps, laid siege to their plants.

They were taught how to destroy their four-footed enemies by poison; they recognized some of their feathered visitors as friends to be protected, while others were enemies to be driven away by shot and poison. A few saucy blue-jays, killed and hung up by their legs in the fruit trees, gave such effective warning to the rest of the blue-coated malefactors, that in a week scarcely one was to be seen. The quails and rabbits that threatened destruction to the vineyard were hunted down, and boiled and stewed by their two-footed enemies.

The war was not at all times conducted with judgment and discretion, nor was it at times very economical.

Glen had many things to learn as well as the younger ones, and it not unfrequently happened that they committed such mistakes as mixing up a

pound of squirrel poison to kill two squirrels, that it would have been easier and cheaper to trap; or else a lad would run to the house for the box of paris-green to kill a potato beetle or two, that could have been pinched to death with the fingers in one-twentieth of the time.

"If good things were only as easy to grow as weeds," the boys often said. But Glen showed them it was not enough that a plant should grow. "Corn will grow and look fairly thrifty," said he, "in ground that has been left early in the season to grow up to weeds; but when it begins to mature the grain, the moisture is exhausted from the ground, and you have no crop. Neighbor B left two or three stalks, instead of one, in that rather dry field adjoining ours, and there was only moisture left to produce nubbins on those stalks. Neighbor C, thinking the year would be wet, planted his rows a foot closer together than we, and his corn will not weigh so much to the acre as ours."

"But if it had been a wet year he would have made more than we," said one of the twins.

"Perhaps so," replied Glen; "but then we need not have suckered our corn so thoroughly. I think too many people lose by trying to make too much. They are not satisfied with a moderate, reasonable gain, but they will risk all to make a big raise, and then they often flatten out," added he, more expressively than elegantly.

Then he told the boys to dig down in the middle between the rows of corn, and they saw that the ground was a perfect network of fine roots, which had hunted in every available spot for every bit of moisture. While the corn was growing, he called their attention to the way the leaves fed upon the moisture of the air, and they could plainly see how the incoming fog freshened up the drooping plants into new life and vigor. The way the corn germinated, how the hard, starchy inside became soft and milky to nourish the growing germ, the method of growth, the effects of watering the plant at various stages, were all new and pleasing to the pupils, and gave them that interest in and enthusiasm about farm work; that only intelligent knowledge gives.

Drudgery is only another name for ignorant labor, and farm work becomes interesting, intellectual pastime, fit for the best-trained mind, when it is turned into a number of thoughtful, cautious, wise experiments.

Glen showed them how much of the soil could be naturally irrigated in winter, by turning water from the little ravines and hillsides over the land, by proper fall plowing. He showed them how water could be taken out of those streams which run only a few days in winter, and turned over the lower lands, making them more and more productive each succeeding year. He showed them how alkali land could thus be covered up by deposits from the rivers and barrancos. He taught them how to check the upward current of those barrancos by loads of straw, or a table of overhanging boards at the upper end; and how to fill up those barrancos that were already cut by a judicious succession of walls to catch and retain the soil in the waters. "Every inch of rain, from eight inches up to eighteen, is worth one hundred dollars in this cañon," said he. "Now, if I let three inches run off down the barranco I have really lost \$300."

Glen showed them the value of stock upon a farm in connection with ordinary crops. That it was easier as well as more profitable to let the hogs harvest the barley, and then market the hogs, than to cut, thresh, and sell the grain. They were shown how eagerly the cattle fed upon the bean-straw, the chaff and other things that many farmers burnt or wasted; and that in taking proper care of such things lay the most of the profits of the small farmer. The merits and demerits of the various breeds of stock were discussed, and the advantages of pure or mixed bloods compared.

Pruning, grafting, and budding were practiced by the pupils, and various experiments of grafting on other stocks were tried. There are many of these useful operations that a boy or girl of seven years of age can learn to do well, yet which most farmers never do learn to do, because they never try.

But space forbids that I should tell the thousand and one things about farming, gardening, and tree culture, which the pupils and the teachers, as well, learned at Cañada Grande school.

Suffice it to say, that farming lost much of its laborious, drudging look to nearly all of them, and the charms of city life looked pale and hollow before the healthier, honester atmosphere of the farm.

There is no good reason why every country school should not have a miniature agricultural department, and the pupils and teacher might make their experimental plot pay expenses, at least, as well as be of untold value in experience and experiment. Our hours of book study are too long, and our hours of the study of nature—alas! we have none.

C. M. DRAKE.

Santa Paula.

THE LAW OF MENTAL DEVELOPMENT.

FIRST PAPER.

THE philosophy of education is founded on man's relations to the external universe. The establishment of an efficient educational system, therefore, involves a recognition of the law that regulates the development of man's intellectual powers. In a careful analysis of the faculties which inhere in the human soul, we may clearly trace the operations of that law.

The primary faculty of man's complex mental organism is perception, which takes cognizance of external objects in their simplest forms, as they address themselves to the mind through the perceptive organs. The immediate result of perception is sensation, which faculty may therefore be regarded as the secondary condition of all human knowledge, the mind being passive in its reception of impressions, produced by objective realities in the act of perception. Out of sensation springs the active faculty of reflection, in which the mind observes the external object, as related to its sensible effect; and again a distinct impression is made upon the sensory apparatus, differing from the former effect of perception by combining with it a new element of knowledge, a consciousness of the relation existing between the cause and its effect. This

second state of passivity is termed "conception," the essential meaning of which is expressed by the term "idea." At this point knowledge practically begins, consciousness uniting with the perceptive faculty to increase, by incessant reflection, the number of ideas, and to establish a relation between them, thus leading to the complex arrangement of ideas which is designated as thought.

The several avenues through which objective realities present themselves to the perceptive faculties, and the infinite diversity of objects perceptible, serve to multiply without limit the number of impressions produced, and consequently the mind continually discovers new and still more complex relations, the cognition of which produces corresponding conceptions, thus indefinitely accumulating material for thought. This multiplication of diverse conceptions necessitates the exercise of higher and more complicated faculties; otherwise the mind itself would be involved in a trackless labyrinth of conceptions and lost in the midst of boundless provisions for its own enlargement.

Henceforth the process of mental development involves the use of the rational or structural faculties. Classification of ideas becomes a primary condition of systematic and effective thought, and the faculty of comparison is at once brought into requisition for the attainment of this essential end, whereby the various ideas are arranged in groups, upon the basis of a recognized similarity or difference, thus forming an available fund of acquired knowledge. In this primary work of classification, memory is also brought into exercise, facilitating the systematic arrangement of prepared material for effective use in the communication of ideas through appropriate symbols.

The foundation of thought structure being now securely laid, all the faculties that have been enumerated are brought into combined activity. Each idea, having been subjectively considered and assigned its appropriate position in the classification and nomenclature of spoken and written symbols, now becomes an objective reality, the embodiment of itself in human language, to be considered like all other objects, and employed in the more complex modes of thought. The due arrangement of ideas, for the purpose of communicating to others the impressions produced upon the mind of one individual, is, therefore, when fully understood, equivalent to a comprehension of the human faculties themselves in the external universe, which it is man's peculiar and honored privilege to investigate. Language is thus at once the product of human intelligence, under the impelling force of necessity, the vehicle of thought in all our investigations, and the objective embodiment of our own complex mental and moral nature, to be itself subjectively considered. How wonderful is the fact that each successive thought in the train of our mental process becomes as truly external to ourselves, when traced upon the written page, as are the features of those whom we address with the living voice! Yet such is human language, in which is garnered the wealth of ages, the accumulations of scientific research, and the moral and social influence of all past generations.

And what is this product and embodiment of human thought? It is the alphabet of the nursery, the monosyllable of the primary school, the elementary lesson of the intermediate classes, the progressive chart of the higher depart-

ments, the curriculum of the college, and the thesis of the university. It is far more than all these, constituting, in its comprehensive record of all past progress, the forge at which geology welds and tempers its implements of investigation, the laboratory where chemistry analyzes the complex combinations of simple elements and liquefies the most ethereal of gases, the telescope through which the astronomer reads the starry records of creative wisdom, and the channel of divine communication to man. In it the philosopher has recorded his demonstrations of universal law, from the attraction of gravitation to the analysis of the solar spectrum, and by its diffusion of knowledge through the printing-press, it has revolutionized the world; while the lightning speed of telegraphic thought, the telephonic transmission of speech and song, and, last of all, the phonographic preservation of vocal utterance, like the frozen music of Munchhausen's fabulous horn, to be called forth at will in distinct tones, give attestation to the priceless value of this product and vehicle of human intelligence.

In the acquisition of knowledge, language is therefore indispensable. In acquiring a knowledge of language itself, the utmost economy should be practiced and the methods of instruction made conformable to the law of development, which we have endeavored to trace in the natural processes of human thought. It is a favorite argument of biologists, that the records of development in the four sub-kingdoms of vertebrate animal life, as traced in the geological strata and in the embryonic development of individuals, so exactly correspond as to furnish a strong inferential argument in favor of Darwin's theory of descent. Such a concurrence is certainly worthy of consideration, if we accept the statement of perfect correspondence between a general law and its application in a special instance. By a similar coincidence between the general law of mental and moral development in a race, and the special application of that law in the education of the child, it may be inferred that the true method of instruction must conform to this principle. In this case there can be no question respecting the concurrent teaching of philology and personal experience. Indeed, it is a matter of surprise that our methods of instruction should so long have been in direct opposition to the natural law of language-structure.

JOHN H. DURST.

"Class in geography, come forward ; and in case any of you drop a pencil, look out of the window, or utter a cough, I will keep the whole school in at recess. Now, then, where is Green Cheese Creek?" They give it up. "What! None of you able to answer that question? Here are twenty boys who expect to become business men, and seven girls who will become wives and mothers, and not one of you know that Green Cheese Creek rises in the southeastern part of Hindostan, and flows in a northwesterly course for seventeen miles and twenty-two rods, and empties into Ham River. You boys would look nice starting out as lawyers, doctors, and book-keepers, wouldn't you? Go to your seats, and as a punishment, each one of you must write fifty words, and give me the name of every President of the United States."—*Detroit Free Press.*

WHAT THE TRAVELER SAID AT SUNSET.*

THE shadows grow and deepen round
me,
I feel the dew-fall in the air;
The muezzin of the darkening thicket
I hear the night-thrush call to prayer.
The evening wind is sad with farewells,
And loving hands unclasp from mine;
Alone I go to meet the darkness
Across an awful boundary-line.
As from the lighted hearths behind me
I pass with slow, reluctant feet,
What waits me in the land of strangeness?
What face shall smile, what voice shall
greet?
What space shall awe, what brightness
blind me?
What thunder-roll of music stun?
What vast processions sweep before me
Of shapes unknown beneath the sun?
I shrink from unaccustomed glory,
I dread the myriad-voiced strain;
Give me the unforgotten faces,
And let my lost ones speak again.
He will not chide my mortal yearning
Who is our Brother and our Friend;

In whose full life, divine and human,
The heavenly and the earthly blend.
Mine be the joy of soul-communion,
The sense of spiritual strength renewed,
The reverence for the pure and holy,
The dear delight of doing good.
No fitting ear is mine to listen
An endless anthem's rise and fall;
No curious eye is mine to measure
The pearl gate and the jasper wall.
For love must needs be more than knowledge:
What matter if I never know
Why Aldebaran's star is ruddy
Or warmer Sirius white as snow!
Forgive my human words, O Father!
I go Thy larger truth to prove;
Thy mercy shall transcend my longing:
I seek but love, and Thou art Love!
I go to find my lost and mourned for
Safe in Thy sheltering goodness still,
And all that hope and faith foreshadow
Make perfect in Thy holy will!

JOHN G. WHITTIER.

THE POET AND THE CHILDREN.*

TO H. W. L.

WITH a glory of winter sunshine
Over his locks of gray,
In the old historic mansion
He sat on his last birthday.
With his books and his pleasant pictures,
And his household and his kin,
While a sound as of myriads singing
From far and near stole in.
It came from his own fair city,
From the prairie's boundless plain,
From the Golden Gate of sunset,
And the cedarn woods of Maine.
And his heart grew warm within him,
And his moistened eyes grew dim,
For he knew that his country's children
Were singing the songs of him:
The lays of his life's glad morning,
The psalms of his evening time,
Whose echoes shall float forever
On the winds of every clime.

All their beautiful consolations,
Sent forth like birds of cheer,
Came flocking back to his windows,
And sang in the Poet's ear.
Grateful, but solemn and tender,
The music rose and fell
With a joy akin to sadness
And a greeting like farewell.
With a sense of awe he listened
To the voices sweet and young;
The last of earth and the first of heaven
Seemed in the songs they sung.
And waiting a little longer
For the wonderful change to come,
He heard the Summoning Angel,
Who calls God's children home!
And to him in a holier welcome
Was the mystical meaning given
Of the words of the blessed Master:
"Of such is the kingdom of heaven!"

JOHN G. WHITTIER.

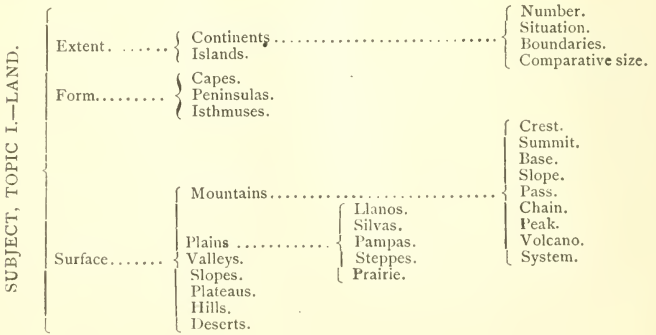
*These two beautiful poems are taken from the latest collection of Whittier's poems, just issued from the press of Houghton, Mifflin & Co., and entitled *The Bay of the Seven Islands, and other Poems*.

PHYSICAL GEOGRAPHY OF THE WORLD.

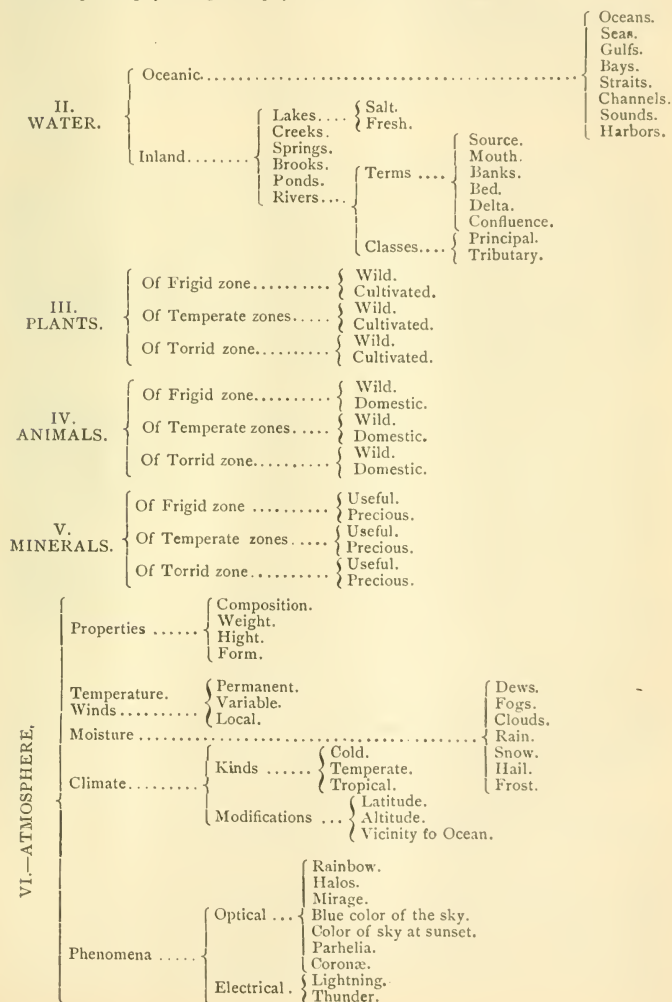
HAVING completed the first topic, take up the second by placing the following words on the board, to be defined at the next recitation.

Definition of Terms.	{	Physical.	Surface.	Climate.
		Land.	Plant.	Wind.
		Extent.	Mineral.	Phenomena.
		Ocean.	Wild.	Principal.
		Animal.	Domestic.	Temperature.
		Air.	Cold.	Moisture.
		Atmosphere.	Heat.	Modification.
		Water.		

In all cases I would have the pupils to learn the definition of each of the terms placed on the black-board, as they will have to use each term in reciting the above topic. No person can use any word intelligently who does not know its correct meaning. Neither can your pupils, my fellow-teacher, acquire a knowledge of geography by repeating to you memorized answers, as they are printed in text-books, when these answers contain words that the pupil does not know the meaning of. Have the pupil learn the meaning of all terms he has to use; then he can give an intelligent answer in his own words. This is the principal reason for having pupils learn definitions of terms. Having done this, the teacher should place the word Land on the board and draw a brace to it, and write in the brace Extent, Form, Surface; have a conversation about these terms. If the teacher manages it judiciously, he will soon have the pupils telling him of the difference in extent of the several bodies of land, of where the land and ocean meet, the water penetrates into the land, and in other places the land extends into the ocean, etc. The teacher then should draw a brace to each of the words; in the brace attached to Extent he should write continents; below this, islands. In the brace attached to Form, he should write capes, peninsulas, isthmuses, and so on, till the following diagram is completed. He should then have them copy the diagram, learn the definitions of continent and island; the same for the terms attached to Form and Surface. When completed, the pupil should be able to write it as follows:



When each pupil has completed his work, an oral recitation should follow, having them locate the continents, bound them, give number, describe the different kinds of plains, etc., till he has gone over the entire diagram. Then take up each of the following sub-topics of physical geography, and proceed in the same manner as with this one, till each pupil can diagram the whole topic of physical geography of the world, as follows:



It will be noticed, no doubt, that a great many terms have been omitted, but as these diagrams are only intended to illustrate the method of teaching, it is not necessary to arrange every term applied to land and water, when it can easily be done by the live teacher. Again, all teachers well know that a written description of a recitation is a poor illustration to what a recitation would be in a school-room; so much depends on the teacher in outlining and conducting topical recitations.

PROF. W. W. KYLE.

Normal Teacher and Examiner.

WHAT SCIENCE AND MECHANISM HAVE DONE.

Men advanced in life can very well recall the past fifty years. What a change! The steam engine was just coming into full play. Gas was a novelty. The railway and steamship were unknown. The newspaper was a weekly rarity even in larger towns and cities. Double that time, and all these things were unknown. The modern or "Anglo-Saxon civilization" was only just beginning to dawn—the application of the forces of nature to rotary motion and productive work was in its infancy.

The traveler in Europe found the people wretchedly poor. In every town and village nine-tenths were engaged in real, hard, slavish work for twelve or fourteen hours a day. Men, women, and children at eight years of age, engaged in toil. There was no such thing as ease, gentility, or luxury, save for the very few. In a town of ten thousand people, a dozen families were all that could be regarded as at all relieved from severe labor. These enjoyed all the books, travel, music, and the fine arts.

All the rest were drudging for the necessities of life. The food bills consumed three-fourths of their earnings. Their food was of the plainest, and scant in quantity. Rent and clothing took the rest—the clothing never sufficient, and not a cent reserved. The cottage of a century past was a dreary hovel compared to the tenements of honest workers of to-day.

Meat and fruits were the first food of mankind, but relying on the productions of nature, from two to five were all that could subsist on one square mile of land. Pastoral life made even ten, or twenty possible. When grain farming supervened, and some sort of breadstuff became the staff of life, from fifty to a hundred became possible. At this stage man became granivorous and vegetarian. The price of bread settled the value of wages, and that value can be best seen by ascertaining how many pounds of bread, or bread-grain, the day's labor would purchase. At last we find meat almost disappear from the tables of the poor in thick populations. It takes from five to ten times the land, or its product, to make one pound of meat that is required for one pound of breadstuff. Flesh is more appetizing, and perhaps more invigorating, but that is doubted; but in heavy populations, the percentage of meat consumed among the poor grows less every day. The great problem of the cook is to

flavor the largest percentage of bread and vegetables with the least portion of savory flesh.

It has long been a well settled maxim of political economists that the wages of labor must supply the wherewith to raise the family of the laborer, otherwise labor will die out and wages must advance. And it is also well settled that a hearty laboring class will always supply such increase that wages must touch this level. It is certain that in Europe for many long years this has been the case in all the stand-still countries. It is the case to-day. The emigration to America has not drawn off all the surplus: in no countries have wages risen except in those where science and mechanism have come to the aid of labor; and the advance has always been in proportion to their introduction.

It is a grave mistake to suppose that modern improvement has done and is doing nothing for the workingman. Facts show that although there may be even a greater distance than ever between him and his rich brother, yet all are advancing at a rapid rate in the enjoyment of the good things of this life. The following table will show the value of a day's labor of the unskilled sort in different ages and countries, and counted in breadstuff. It will be distinctly seen that as we come down to modern times, and get in company with mechanical improvement, the day's work is worth more and more till we come to San Francisco, where all the elements combine to give labor its greatest value.

In England, in 1588, a day's labor would buy of wheat.....	24 lbs.
In most of Europe.....	20 "
In England, 1680.....	30 "
Europe, generally, a small advance.....	22 "
In England, 1780.....	35 "
France, Germany and Holland.....	25 "
Italy, Spain, Austria.....	20 "
In England, 1880.....	60 "
In France, Germany and Holland.....	40 "
In Italy, Spain, Austria.....	30 "
In San Francisco.....	100 "

The hours of labor were wont to be twelve or fourteen; they are now mostly ten. The food bills took three-fourths of the income. They now take from a quarter to a half. The cottage in its furnishings and table exhibits the product of the whole world. It has a thousand luxuries unknown a hundred years ago: and the laborer himself dresses as princes could not then.

The following table is taken from a township of rich soil, with an area of 100 square miles in 1780 and 1880, as taken from actual facts:

In 1780:	
Total population, 50 to a square mile.....	5,000
Capitalists of leisure and culture.....	20
Capitalists, second class and professionals.....	40

Capitalists, third class, farmers and tradesmen.....	200
First-class workers, overlookers, etc.....	200
Second-class workers, honest poverty.....	500
Third-class* workers, pinching poverty.....	2,500
Fourth-class workers, wretched poverty.....	1,000
Paupers at times.....	500
Criminals starving, dying in despair.....	40
Total.....	<u>5,000</u>

In 1880 :

Total population, 200 to a square mile.....	<u>20,000</u>
Capitalists of leisure and culture.....	200
Capitalists, second-class, professionals, etc.....	400
Capitalists, farmers and tradesmen.....	2,000
First-class workers, etc., very comfortable.....	3,000
Second-class workers, living well and saving.....	4,000
Third-class workers, living well.....	5,000
Fourth-class workers, poor, but plenty.....	4,000
Fifth-class, paupers at times.....	1,000
In hospitals, workhouses, etc.....	300
Criminals, beggars, etc.....	100
Total.....	<u>20,000</u>

Now it is seen here that modern society, with the gifts of science, has in that township 2,600 persons who enjoy a condition unknown to any of the 5,000 of 1780. Three thousand well paid workers make more than the whole population of 1780, all in great comfort. Then 13,000 workers in good condition, better than ever before. These leave only 1,400 who might perhaps complain. Of these, the most may trace their condition to circumstances over which society has little or no control. They were not born right, or have yielded to crime, idleness, drunkenness, or improvidence.

The gain of human happiness is immense. The whole mass of life is fourfold, and three-fourths of all find themselves better off than the best of a century ago. With these facts before us, he who affirms that science and machinery are doing nothing for the working man must shut his eyes to the facts of history.—Editorial article in *S. F. Evening Bulletin*.

“In choosing a wife,” says an exchange, “be governed by her chin.” The worst of it is that after choosing a wife one is apt to keep on being governed in the same way.

England has statistics showing that out of 139,143 of her people engaged in literary pursuits only twelve became lunatics. We presume the others were given the benefit of the doubt and called poets.—*Central School Journal*.

EXERCISES FOR FRIDAY AFTERNOONS.

From a circular issued by Geo. O. Mastin, County Superintendent of Carroll County, Illinois, we make the following extracts:

In answer to a letter of inquiry asking for suggestions relative to "Friday Afternoon Exercises," a leading and progressive teacher wrote this: "If I were teaching in a country school I should make my Friday afternoons the happiest half-days of the week. With this object and that of instruction in view, success will surely follow. Pupils may be led to do much work, under the impression that they are playing. Among the many things that you may do, the following are presented as examples:

1. Have a pronunciation test. Prepare and put on the board at least ten words commonly mispronounced. Do this soon enough to enable the earnest pupils to consult the dictionary.
2. Devote twenty minutes to "spelling down," using a list of words commonly misspelled.
3. Have a chart or map exercise.
4. Read a short sketch and have pupils reproduce the thought orally or in writing.
5. Give out work, either orally or from blackboard, requiring work in addition, subtraction, multiplication and division combined. Teach squares of numbers.
6. Let each pupil give a sentiment from a standard author. If possible, induce the pupil to develop the thought in his sentiment. (Language lesson.)
7. Put queer "queries" on the board for investigation. Do this a week in advance. It will stimulate observation. Parents will grow interested.
8. Require pupils to answer rapidly ten questions about current events, dates, places, persons, etc. Number the answers from 1 to 10, and criticise as in written spelling lessons.
9. Give a practical lesson in civil government.
10. Conduct an exercise in false syntax. This work is very practical. Require pupils to correct sentences without giving the grammatical reasons. In this way you can do much to teach the true use of the verbs *teach*, *lie*, *sit*, *lay*, *set*; the true use of the past tense and past participle of irregular verbs; and also discountenance many vulgarisms. It is better to do this than to teach the list of presidents of the United States.
11. Require old pupils to write, fold properly, inclose, and address a letter of some kind.

The above are among the things that pupils can and will do. You can not expect to bring about all of these results at once. It is an easy matter to state *what* to do. But it takes time and patience to learn *how* to do these things. When the very young pupils grow weary, let those of them who prefer it go home. You need not hope to secure the willing co-operation of all your pupils. If half of them try at first, you may feel encouraged. Giving sentiments is a pleasant exercise. Every teacher should own an Emerson or

a Longfellow calendar, and place it in his schoolroom. If you know of anything in addition to the above that adds interest to above suggestions, please let the teaching fraternity hear from you. If the plan of having "Friday afternoon" exercises impresses you favorably, don't fail to attempt it, no matter how small your school, nor how unruly, nor how unlimited your supply of books and appliances, nor how brief your experience. But of one fact you may be assured: Unless you are willing to do much extra work out of regular school hours, you can hardly hope to win.—*The Practical Teacher.*

HOW TO MAKE AND UNMAKE PARTIES, OR PROPORTIONAL REPRESENTATION.

WHAT IT IS, AND WHAT IT WILL DO.

FIRST ARTICLE.

THERE are two fatal defects in our present electoral system. One is the necessity of getting a majority or a plurality in order to elect. The other is the separation of voters by district lines which prevent them from co-operating to protect themselves from political tricksters, and the various combinations of the corrupt elements in society.

These two defects operating together make it almost impossible to either disband an old party, or form a new one. If an exception now and then occurs, much time and money must be expended; and when the new one becomes strong enough to do anything, it is likely to be so corrupt that it does more bad deeds than good ones. In fact, these two defects enable corrupting influences to take root in a party even at its birth; and to continue with it constantly. It is a common remark that all parties will become corrupt after a long lease of power. It would be strange if they did not, organized as they are under a method of voting which tends to make them corrupt at the start. New parties are sometimes worse in this respect than old ones. The trouble with parties is, not that they become corrupt in time, but that they are so *all the time* in a greater or less degree. Even when parties are at their best, the public welfare is second to that of party. These things must continue until parties are organized and managed in a different way.

But there are other and worse evils than these. The voters must at all times "vote the ticket." If they refuse to ratify the nominations made by whomsoever or by whatever may be the "boss" in their party, they are pretty sure to divide their ranks and thereby suffer defeat. The voters are therefore well nigh helpless. They are repeatedly reminded of their enslaved condition, for at every election they are warned not to throw away their votes; in other words, they must obey orders the same as the rank and file of an army. The result is, they are misrepresented by men they elect but *do not select*. To be misrepresented is as bad as to be unrepresented.

Our present method of voting is therefore responsible for the virtual disfranchisement of majorities as well as minorities. It results in making our ballot a sham and a counterfeit ; for it must be admitted that to be endowed with a genuine ballot means that those so endowed have liberty to use it as they please, and at the same time the *power* to make it execute their will. The liberty the voters now have is to refuse to vote for men selected by party "bosses," or "wring in" by party tricksters. All the power they have is to throw their votes away in trying to elect men of *their own* choice.

Proportional representation will enable the whole body of voters to be represented by men of their own selection. It is therefore *quite a different thing from minority representation*, as that term is generally understood.

Our present system comes nearer to a minority than to a majority system of representation, since it results in little else than the representation of special interests, cliques, and "rings," of which some one or more is "the power behind the throne."

No people can govern themselves until they can control their parties ; and this they never can do so long as they are *compelled* to belong to a great party, and to obey party leaders. The voters cannot be their own masters, cannot "govern themselves," cannot in any way protect themselves, except it be by force, unless they can vote for whom they please, and at the same time make their ballots count in proportion to the number cast, whether that number constitutes a majority or not. They must, therefore, do away with the *necessity* of belonging to a great party ; but they must retain the power to create a great party at any time ; and above all, they must be able to control it, to "muster it out," and to form a new one at their own pleasure, instead of waiting for the word of command from some "power behind the throne." A great party is a dangerous power when some one or a few special interests, or a few bad men, can control it. Proportional representation does away with the necessity of getting a majority at the ballot-box. It will, therefore, enable a small body of voters to elect men of their own choosing, and thus make them independent of party leaders, and the various "*powers*" which now control great parties.

It is a plan by which each and every party can secure a share of the representatives, whether National, State or Municipal. First, the present compulsory districts in a State and ward lines in a City must be abolished. The whole number of votes cast, divided by the number of representatives to be elected, will give the quota or number that it will take to elect one. If ten are to be chosen, every tenth part of the voters can elect one ; if 100, then every one-hundredth part. The number that any party can elect will depend upon the number of quotas it can muster, and not upon getting a majority or plurality of the votes. Compulsory districts and ballot-box majorities are the two fatal defects in our present system. Abolish them, and permit any body of voters that can muster a quota to elect any one they please.

Suppose 200,000 voters, and 100 representatives to be chosen. Then 2,000 voters will elect one. Suppose there are four parties—one of 80,000, one of 60,000, one of 40,000, and another of 20,000 : the first will elect 40 ;

the second 30 ; the third 20 ; and the last 10 representatives. There are several plans by which this result can be obtained. One is the Hare and Andr  method, which has been in operation in Denmark for the last twenty-eight years. By this method a ballot may contain only one name, or several—at the option of the voter. If more than one, each name will be numbered respectively 1, 2, etc. The ballot will be counted for only one of these names, and will be first counted for name No. 1. If this first name receives more votes than a quota, the surplus votes will go to name No. 2. If, however, name No. 1 fails to get a quota, and therefore can not be elected, all it does receive will go to No. 2, and so on until the ballot is counted for and helps to elect some one of the names thereon.

Another way is the Free List method : A list of candidates is made out by each party ; and a single quota of voters can constitute a party as in the other plan. A single quota will elect one, and a party that can muster ten quotas will elect ten, and so on.

Another way : Mr. Alfred Cridge, well known both in this country and Europe, as an able writer on this question, says : “There should be but one house of the Legislature elected “at large.” That is, every voter should be permitted to vote for one candidate, and no more, the district lines being wiped out.” Under this last plan the quota—or number of votes that it will require to elect a candidate—will not be fixed, or compulsory ; since if ten are to be chosen, the ten highest will be elected. There are several ways to prevent a waste of votes under this plan. Under our present method nearly one-half, and frequently more, are thrown away on unsuccessful candidates ; while the remainder merely register the will of the party bosses, or whatever power is uppermost, and not the will of the voters.

There are modifications of the foregoing plans, and besides these, other methods also, by which proportional or co-operative voting can be secured. By this system of voting, a body of voters that is too small to elect a representative can combine with another small body in any part of the State in electing a Legislature, or in any ward of a city in electing city officials. It will also prevent a large body of voters, entitled perhaps to several representatives, from being left without a single one, as at present. The plan might be modified by dividing a large State into two or more districts, if for any reason it should be desirable so to do.

While proportional voting enables the best elements in society to co-operate, and be represented by the best, the worst will only elect enough to represent themselves. Suppose it to require a quota of 2,000 votes to elect a candidate ; then the purchase of that many votes would secure only one man, without in the least injuring those who were not for sale.

Proportional voting will operate constantly to *prevent* a great party from becoming corrupt, because every quota of voters can elect an honest man wherever they can find him. There will then be some inducement for an able and honest man to make his honesty and ability known ; at present, if such a man desires to do his country a service, he must “keep dark” on the matter ; if “the ring” should “get wind” of what he proposed to do, he would surely be defeated.

The present method of forming parties, and of keeping them up, tends constantly to *create* corruption. The incorruptible voters are virtually prevented from co-operating. Unless they can poll a majority or a plurality of the votes in a district, their co-operation does no good. On the other hand, the corrupt elements can co-operate before they go the polls, and the law, which permits the majority to get all, enables them to profit by their co-operation, while it prevents the honest voters from receiving any benefit from theirs unless they turn corruptionists also, and thus spread the evil broadcast.

A great party formed of groups or quotas, as described, will present a poor field for political tricksters to operate in. Each quota can vote "*independent*," and elect a man who will be dependent on no power but the quota which elected him. *Furthermore, no "barrel-of-money will be required.* A new party can be formed at short notice if the people so choose, because voters in all parties can, if they like its principles, support it without throwing their votes away. When the majority of a great party become satisfied that they have done all the good they ever will, they can make their votes count to disband it without throwing every thing into the hands of an opposing party. The power of the voters to thus withhold their support, or disband a party, would have a tendency to make all parties progressive, and enable the voters to support principles as well as parties.

Finally, proportional representation will permit every opinion to be *outspoken*, and every interest to be defended without a resort to fraud and deceit. This will be a moral stimulus; and, if reason has force, if truth has virtue and power, then men of truth and reason will be sustained; and soon, by a natural process, the best elements will rule. *Patriotism and Morality will then exert an influence, now unknown.*

SIMEON STETSON.

Author of "The People's Power, or How to Wield the Ballot."

LESSONS IN ARITHMETIC.

It has occurred to me at times that there is one method in the teaching of arithmetic that few, comparatively, employ, and which in my judgment is of great importance.

In what manner should a child be enabled to solve such a problem as the following?

"The greater of two numbers is three times the less, and the sum of the numbers is 36; what are the numbers?"

This being quite out of their reach, I gave them the following: "I have here thirty-six nuts," (I actually had them) "and I want one of you to give them to two of the class so that one will have three times as many as the other." "Now, how many shall we give the first, so as to be *sure* she doesn't have *too many*?" Some pupil suggested that it would be safe to start with one.

So the distribution was made; the first receiving one, the second three, and so on, till all were gone. Some of the brighter ones quickly saw how it must come out; the number of "rounds" depending, of course, on the number given out at each "round," nine times around, giving to the one nine and to the other nine times three nuts.

"Divide 472 into three such parts that the second shall be twice the first, and the third three times the second, plus 13."

By taking a smaller number and using the nuts again, the matter was made quite plain, although I believe it was necessary to repeat in this case, having the one who was most puzzled perform the operation herself. The extra ones should be given out at the start.

"The sum of two numbers is 243, the second is three times the first minus 25; what are the numbers?"

I found this much more difficult. After some hard thinking—for to tell the whole truth, I was bothered myself—the next morning I presented it as follows: "I will give these thirty-seven nuts to any two of you girls who will so divide them that one will have three less than three times as many as the other." There being three volunteers, they drew lots, so as to throw out one. One of the remaining two then proceeded to divide the nuts as directed. This she accomplished successfully. When it came to an explanation of the work, however, nothing satisfactory could be obtained. "Suppose," I said, speaking to the one who made the distribution, and who accordingly received the lion's share, "that I should lend you three nuts; would that help? They readily saw that when the number was exactly divisible by four the difficulty vanished. After the distribution was effected and my loan returned, one was found to have three less than three times as many as the other.

"The fore wheels of a carriage are each nine feet in circumference, and the hind wheels are each ten feet: if the fore wheels each rotate 400 times in going a certain distance, how many rotations will each hind wheel make?"

The above was difficult to most if not all the class. I simplified it as follows:

"Suppose this call-bell is the fore wheel," I said, stooping down and rolling it along the floor, "let us see how many inches it will measure in turning once, twice, three times, and so on half a dozen times or more. Then some one measured how far it had traveled in all to corroborate the other measurement. Then taking a large hand bell on its rim, I made a mark which I placed right over the one on the floor, and turned it once. Some one measured the distance, and then all calculated how many turns the big one would make in passing over the distance traversed by the little one.

The above examples suffice to bring out the idea. Different teachers would of course use different illustrations. In nothing, do I find my ingenuity more severely taxed than in so presenting a problem as to *tell little and be told much*. It is surprising how much stupidity some of our text-book makers display in the presentation of difficulties.

A. E. JONES.

EDITORIAL DEPARTMENT.

NOT VERY DANGEROUS.

THERE is nothing like going away from home to hear the news. So the following from the *New England Journal of Education*, informs us that there is a Richmond in the California field of educational journalism of whose existence we have heretofore been entirely unaware. The *New England* says :

“ Under the resounding title, *The Family's Defender Magazine and Educational Review*, our old friend, Hon. Zachary Montgomery, of California, publishes a quarterly pamphlet of one hundred pages, which has reached the third quarter of its second year. Mr. Montgomery prints at the head of his title-page the ringing couplet :

“ ‘ Truth crushed to earth shall rise again,
The eternal years of God are hers.’ ”

“ On opening this promising periodical we find that the enemy against which the family is to be defended is nothing more nor less than the common school. To this institution the Hon. Mr. Montgomery applies a liberal assortment of offensive names, such as ‘ Poison fountain,’ ‘ Anaconda,’ and so on. We only wish, for once, Zachary would do his worst, and, in one thunderbolt, concentrate all that he feels about this ‘ infamous thing.’ ”

The *New England Journal* need be under no concern for the safety or well-being of the California school system, on account of Mr. Montgomery's attacks.

The danger to our schools comes from within. Whatever injury they sustain will arise not from the fanatical diatribes of those who are unable to sympathize with their spirit, or are ignorant of what they actually accomplish, but from the indifference of their teachers and their disposition to fall into ruts.

Let us, once for all, realize that herein lies the greatest danger to the perpetuity or progress of the system.

Political “ bosses ” making places for their favorites can do but temporary harm ; venal legislatures must in the end give way to better law-makers ; an ignorant press will in time learn wisdom. But there is no remedy for an unprogressive spirit among teachers. If teachers are better scholars and more earnest instructors on their first day in the schoolroom than ever afterwards, woe unto the schools !

If teachers, immediately after their places are secure, cease to study and to read, to keep up with current events and the thought of the day, fail to keep themselves not just one step, but a whole story, above their pupils, then indeed will the system crumble and fall.

So it is not the Montgomerys, or the Grant Whites, or the McQuaids, or the Gail Hamiltons, who jeopardize our security, but those who are much nearer home.

DO WELL WHAT YOU ATTEMPT TO DO.

Everybody seems ready to advise what the schools should do, or what they should not do. “ Cut down the number of studies,” says one ; “ omit recesses,”

says another ; "cultivate the æsthetic," exclaims a third ; and still another insists that every school shall also be a work-shop, "to fit children for the actual business of life."

We modestly suggest one improvement which press and populace alike seem to have forgotten. Improve the schools by making the work more thorough. Do better—do well what we undertake to do.

Of course, there is something wrong in the schools. It cannot well be otherwise when there is something awry in the State : when the church is only a success (limited); when the press is not entirely immaculate ; and when the people are frequently disposed to barter away the highest future for any make-shift in the present. It would be exceedingly incongruous if the schools differed much from their surroundings.

The attitude presented by the friends of popular education is not a new one. With the stoic philosophy of old, they say to the Alexanders of the rostrum and the press : "Get a little out of my sunshine."

THE PUPILS' CORNER.

THIS department, which will consist of new, and in many cases original, declamations, poems, dialogues, music, and games, suitable for Friday afternoon exercises, will be under the editorial charge of CHARLES M. DRAKE. Teachers who have matter for the department, or suggestions in regard to it, are solicited to send communications to his address at Santa Paula, Ventura Co., Cal.

TALKS WITH MY BOYS.

I guess we have had enough of arithmetic for one lesson, so let us talk about geography.

Now, where there are fifty teachers who are pretty good in arithmetic, you will hardly find more than one or two who are real good in geography. Why is this? I shall tell you. To be well posted in Arithmetic, one has to know something of geometry, a little logic, and, perhaps, something of algebra, and that is all outside of his arithmetic he need know.

But with Geography it is different. He must have a fair knowledge of all of the above mathematics, and a little more. He must be a good historian, sociologist, geologist, and astronomer ; know about many divisions of botany, zoology, mineralogy, commerce, manufactures, arts, etc.; and be well read in travels and the literature of to-day. He should be a good draughtsman and letterer, and a fair philologist. In fact, to be a good geographer, one must have a broad, liberal education in nearly all the arts and sciences. Before you study geography from a book, you should study it out of doors, looking at the things around you. The mountains and hills, the valleys and plains, the waters, the productions, the very stone under your feet, all will help you to know about geography.

Pick up that small white pebble of quartz which lies at your feet. It

would be clear and transparent like glass if it were not full of little holes. Note how round and smooth it is. That tells you how it has traveled in the bed of some stream, perhaps thousands of years ago. If you were to hunt and hunt, and find out where it came from, you would probably find, high up in the mountains, a ledge of quartz. It may be hundreds of feet thick. Heat and water and living things formed this quartz, and heat and water and living things are now breaking it again to pieces, and carrying it piece by piece to the plains and the ocean below.

See what cañons the streams have cut in these mountain rocks. Examine the rocks in the beds of the streams. See how huge and rough and irregular they are near the heads of the streams. Farther down, there are round boulders or coarse gravel. Then you come to finer gravel and sand; ah, look high up on that hill-side! Do you see that deposit of gravel, and the marks that tell you this stream once ran up there? How many years it took to cut its way down here, hundreds of feet through solid rock! Here is the valley built up by the dirt brought down by the mountain streams. The water runs slower here. We may say it got tired, and dropped its load, or most of it, while on its way to the sea.

We will visit this well they are digging here. Can you not see layer after layer of dirt as we go down into the well? And each layer has its story to tell to one who knows what it says.

It is well enough to learn the Spanish language, or the French, but it is of far greater interest to study the language of these things we see about us every day.

You like the problems in arithmetic; geography has its problems too, and the answers are not yet learned to very many of them. These problems are all around you.

- 1st. How did that oak tree come there? Give ten possible answers.
- 2d. Where did that rock come from, and how?
- 3d. What made that little hillock?
- 4th. Where does the water in this spring come from?
- 5th. Why is this field grown up to fox-tail grass and that to mustard?
- 6th. Why is this field adobe and that one sandy loam?
- 7th. How came this *barranco* here? Six years ago there was none.
- 8th. Why is this hill grassy and that one timbered?
- 9th. How did that Norway rat get here?
- 10th. Why does neighbor Jones have a third more rain than we?

These and hundreds of other problems are waiting for you to solve them. Think about them. Make guess after guess (if you can do no better), and then try it by the rule of reason and see if the answer proves. That will do about geography for the present.

"Now for a new game," do you say? Well, I will give you a game for real hot or rainy weather, when you do not care about running. It is not a new game, but I have never seen it in print, and I think it will be new to most of you.

RETURNING BORROWED ARTICLES.

Girls and boys are seated promiscuously about the room or yard. A goes round and whispers to each boy a girl's name, and to each girl a boy's name.

B follows A, and gives each boy a boy's name, and each girl a girl's name.

C follows B, and gives each pupil the name of some article, such as : a whip, a tea-kettle, a tooth-brush, a squash, etc. Then they give each other names, and the fun begins.

Pupil No. 1 goes to the girl whose name he was given, offers her his arm or his hand, and respectfully leading her to the boy whose name he was given, says : " Mr. D, with many thanks, I return your *potato masher* ; you'll find it in good order." Pupil No. 2, (if a girl) takes the boy whose name was given her to the girl whose name was given her, and says : " Miss H, I bring home your *mop*. The handle is a little loose, (giving the boy's arm a pull) but it is otherwise in good condition." No. 3, a girl, takes her boy to the right girl, and says : " Miss M, I've brought back your *match*. It just sputters and sputters, and goes out. I should think you might buy better matches than this." And so the fun goes on. Each one bringing back an article should try to be polite and ceremonious ; but witty remarks about the borrowed article are always in order. The one who was said to have loaned the article can reply to the borrowers, but it is not proper for the borrowed article to speak.

Now, I think you will enjoy this game which even the youngest can play, but let me give you four cautions.

1st. Don't be rude. A boy bringing home a " peach " might say it was " soft," but not that it was " decayed." If you have a turkey egg to return, don't hint that it is addled ; but if the lender is bashful, you might put the egg gently into his lap, and tell him not to drop it.

2d. Speak loud when returning your article, so every one can easily hear what you say. This is very important. Also be prompt to get your article, and have your speech prepared when your turn comes.

3d. Don't forget to thank the lender, and use polite forms ; offer your arm properly, lead your article politely back where you found it, and bow when leaving both lender and article.

4th. Remember wit must not wound. Be careful of others' feelings. If you are given a turkey egg, and a terribly freckled girl, or a tall, overgrown merry lad, and a bean-pole, alter the name of your article to some other thing.

About three times around is enough to play this game. After that it will not seem so funny, and good names get exhausted. I will give you a short list of good names.

Sauce-dish, pepper-mill, necklace, belt, oyster, baby, leg of mutton, false-teeth, breakfast, rouge, pump, cream of tartar, flat-iron, ruffler, soup-dish, sponge-cake, spoon, bat, duck, goose, lamb, sheep, flounder, cabbage, bow, sofa-pillow, bell, snuff, soothing syrup, honey, liver, gizzard, bangs, whiskers.

You can easily see that some of the above are more appropriate for boys, and others for girls. Next month, if the editor don't discharge me for letting you play too much, I want to tell you about *humbugs*: how to know them, how to treat some of them, and how to prevent them from robbing you. Of course we must get our lessons too.

UNCLE CHARLEY.

HOW TO COMPUTE INTEREST.

4 per cent.—Multiply the principal by the number of days; separate the the right hand figure from the product and divide by 9.

5 per cent.—Multiply by number of days, and divide by 72.

6 per cent.—Multiply by number of days, separate right-hand figure, and divide by 6.

8 per cent.—Multiply by number of days, and divide by 45.

9 per cent.—Multiply by number of days, separate right hand-figure, and divide by 4.

10 per cent.—Multiply by number of days, and divide by 36.

12 per cent.—Multiply by number of days, separate right-hand figure, and divide by 3.

15 per cent.—Multiply by number of days, and divide by 24.

18 per cent.—Multiply by number of days, separate right-hand figure, and divide by 2.

20 per cent.—Multiply by number of days, and divide by 18.

MATHEMATICS.

This department is under the editorial charge of PROF. HAMILTON WALLACE, Superintendent of the Salinas City schools. All communications in reference thereto should be addressed to him.

NOTE 1. Every figure standing in place of units repeats either itself or its arithmetical complement, in the units' place of the cube number. 1, 4, 5, 6, 9, repeat themselves, and 2, 3, 7, and 8, repeat their arithmetical complements; 2 being the arithmetical complement of 8 and *vice versa*; and 3 being the arithmetical complement of 7, and *vice versa*. Hence, the root of any cube may be determined, from its last digit, by *inspection*; if this be 1 the root is 1, if 2 the root is 8, if 3 the root is 7, if 7 the root is 3, if 8 the root is 2, if 9 the root is 9. Hence, to ascertain the cube root of any perfect cube, find the units' figure from the units' figure of the cube as above; then, neglecting the right hand period of three figures, take the cube root of the cube falling next below the remaining figure or figures.

E. G. Find the cube root of 1728. The last figure indicates that the units' figure of the root is 2. Then, neglecting the period 728, and taking the root of the cube equal to the remaining 1 or, next below it, we find the next

figure of the root is 1. Hence, the cube root of 1728 is 12. Again, find the cube root of 636056. The units' figure of the root is 6, since 6 repeats itself in the cube, or root. Then the cube root of the cube next below 636 is 8, \therefore the cube root of 636056 is 86.

EXAMPLE 1. Find the cube root of 148877. The units' figure is 3 and the tens' is 5. \therefore Ans. 53.

EXAMPLE 2. 571787. The units' figure is 3; the ten's is 8. \therefore Ans 83.

EXAMPLE 3. 354894912. The units' figure is 8; the root of 354894 is 70. \therefore Ans. 708.

NOTE 2. All reciprocals may be added and subtracted as follows: *For the sum*, write the sum of the denominators over their product. *For the difference*, write the difference of the denominators over their product. E. G.
 $\frac{1}{9} + \frac{1}{7} = \frac{7+9}{7 \times 9} = \frac{16}{63}$. Their difference $= \frac{9-7}{9 \times 7} = \frac{2}{63}$. Again, $\frac{1}{11} + \frac{1}{24} = \frac{24+11}{11 \times 24} = \frac{35}{264}$. Their difference $= \frac{24-11}{24 \times 11} = \frac{13}{264}$.

Problem. Demonstrate an analogous method for finding the sum and difference of three or more reciprocals.

NOTE 3. *Problem.* A monument is constructed of eight cubic blocks placed one above another, and decreasing in size from base to summit; the block at the top is a cubic foot, and that at the bottom is equal in volume to all those above it. Find the altitude of the monument and the dimensions of each block.

NOTE 4. Method of Teaching Long Division. The divisors used at first must begin with the digits 1 and 0 respectively, and may consist of any number of digits. E. G. Divide 9587659 by 10255.

Operation :

$$\begin{array}{r}
 10255 \overline{) 9587659} \{ 935 \\
 \underline{92295} \\
 35815 \\
 \underline{30765} \\
 50509 \\
 \underline{51275} \\

 \end{array}$$

This method is the outgrowth of experience and observation, and will be found *useful*. The following points will be obvious: 1. The pupil can easily determine the successive figures of the quotient. 2. He is necessitated to reflect upon each step long enough to produce a double impression, and hence will acquire the general plan of Long Division much sooner than otherwise. 3. The large divisors furnish practice in multiplication and subtraction. When the pupil becomes *familiar* with such problems, the digits 1 and 0 may be increased, until at length he has acquired the ability to find the figures of the quotient by trial.

NOTE 5. The problem in April JOURNAL was, by mistake, pointed $\sqrt{x} - \sqrt{x} = 4$. The proper statement is $\sqrt{x} - \sqrt[3]{x} = 4$. It may be solved by quadratics as follows :

Let $x=n^6$. Then $n^3-n^2=4$. Multiplying both sides by 4, we have $4n^3-4n^2=16$. Add n^4+8n^2 to each side, and we have $n^4+4n^3+4n^2=n^4+8n^2+16$. Extracting the square root of each side, we have $n^2+2n=n^2+4$. Whence $n=2$. $\therefore x=64$ Ans.

NOTE 6. $2 \div 2 \div 2 \div 2 = ?$ Our answer is 1.

EXAMINATION QUESTIONS.

DEFINING.

Explain or state difference between the following synonyms: 1. Value and worth; 2. pride and vanity; 3. strict and severe; 4. repeat and reiterate; 5. sufficient and enough. [2 credits for each couplet.]

Define the following:

- | | | | |
|------------------|-----------------|-----------------|------------------|
| 1. sinecure. | 11. fossil. | 21. sobriquet. | 31. cajole. |
| 2. paraphrase. | 12. parsimony. | 22. perennial. | 32. mammon. |
| 3. veneer. | 13. prospectus. | 23. coeval. | 33. summum bonum |
| 4. putrefaction. | 14. erratic. | 24. anemometer. | 34. epitome. |
| 5. taciturn. | 15. D. V. | 25. nucleus. | 35. ligneous. |
| 6. incognito. | 16. via. | 26. charlatan. | 36. onerous. |
| 7. glossary. | 17. aviary. | 27. ethics. | 37. erudite. |
| 8. pellucid. | 18. vs. | 28. plagiarist. | 38. denizen. |
| 9. emaciate. | 19. apropos. | 29. cycle. | 39. garrulous. |
| 10. sub rosa. | 20. et al. | 30. caitiff. | 40. calumny. |

1 credit each.

HISTORY OF UNITED STATES.

1. Name the chief facts concerning the settlement of Pennsylvania. Of Virginia.
2. State what explorations or discoveries made by, or part each of the following persons had, in the history of America: Sir Francis Drake, Balboa, Cabot, Hudson, Oglethorpe.
3. Briefly state the causes of the Revolutionary War, and mention the first and last engagements.
4. Name the first three and last two Presidents of the United States, and give at least two prominent events in the administration of each.
5. What causes led to the war of 1812? What causes led to the Mexican War?

GEOGRAPHY.

1. Define mathematical and political geography.
2. What determines the climate of a place?
3. What is the difference between a river system and a river basin?
4. What countries export cotton, rice, jute, quicksilver, tin, dates, flax, cattle, guano, India-rubber?
5. What are the causes of monsoons, land and sea breezes, fogs, trade winds?
6. What physical advantages has Europe over the other grand divisions?
7. What are the noted agricultural products of New York? Of Mississippi? Minnesota? California?
8. Where are the following cities and for what noted: Glasgow, Bordeaux, Belfast, Liverpool, Pensacola?
9. Name the exports of Mexico, and tell what the United States imports from France, Cuba, Sandwich Islands.
10. Across what countries does the equator pass? Name the four great commercial cities of the world.

PHYSIOLOGY AND HYGIENE.

1. Define physiology, anatomy, hygiene, muscle, ligament.
2. Define absorption, circulation, digestion, respiration, assimilation.
3. Explain fully the double circulation of the blood, and give use of *each* circulation.
4. Write a clear, full explanation of the process of seeing. Name organs of sight.
5. Give such rules for the care of the teeth, the eye, the skin, the ear, the hair, as you think pupils of the 3rd and 2nd grades can understand.

NATURAL PHILOSOPHY.

1. Define specific gravity, and state how the sp. g. of a body heavier than water may be found.
2. Explain in detail the operation of the telephone.
3. Objects seen just across the top of a heated lime kiln or any heated body seem unsteady: why is this?
4. Can you see the same portion of your person when standing before a vertical mirror, although you change your distance from it? Explain by diagram.
5. Explain the formation of dew.
6. Explain why sprinkling the floor cools the room.
7. Very often after a storm we see given the number of inches of water that have fallen. Explain the process of measuring and marking the fall.
If my *rain-guage* is 10 inches square, and the registering tube $\frac{1}{2}$ inches square, and I find by inspection 40 inches of water in the tube, how much rain fell during the storm.
8. *Why* does a boy in jumping from the moving train try to strike the ground with his feet so much in advance of his body? Give principle involved.
9. Why does the sudden starting or stopping of a train throw standing people against each other and *often* to the ground?
10. Why are sand, ashes, etc., put on the rails under the driving-wheels of a locomotive?

NEWS RECORD.

Foreign and Domestic.

Great floods have occurred near Larissa, in European Turkey.

London was startled one Tuesday evening of last month by two terrible explosions on the underground railroad, one about two hundred yards west of the Charing Cross Station, and the other at Praed Street Station; at the former place the walls of the tunnel were battered and the windows of the station blown out, but fortunately no person was hurt; at the Praed Street Station a deep hole was made in the bed of the road, the brickwork was blown out, the refreshment saloon wrecked, and the passengers in the last two carriages of the passing train injured—four very seriously hurt, and over forty wounded. Investigation shows that the work was done by nitro-glycerine, and the dastardly character of the enterprise is manifest on its face. A reward of £10,000 has been offered for the arrest and conviction

of the parties who caused the explosions.

It is thought that hostilities between China and France cannot be prevented, and the situation of foreigners in China is thought to be very insecure.

Gen. Sherman has retired from, and Gen. Sheridan has assumed, the command of the army.

The Grand Jury at St. Louis has indicted several city officials, and reproaches the Governor of Missouri for pardoning criminals.

In spite of the Colonial Secretary's disapproval, a company has been formed in London for the purpose of exploring New Guinea.

Negotiations between Cambodia and the French government have been finished, and a French protectorate has been established in that place. For this France received 66,000 piastres annually.

The Nihilists seem to be waking up in Russia. One of their last manifestoes has condemned the Tzar to death.

A special bulletin of the *Lima Diario Oficial*, of October 21, announces the signing of the treaty of peace at Ancon, on the 20th, between the Chilian government and General Iglesias. The bulletin adds that Lima and Callao will, within two days, be occupied by Peruvians.

In Madagascar, the French troops are preparing to resume operations. The Hovas are reported to have recently recaptured several of the places first seized by the French forces. The Hova chiefs, summoned by the Queen of Madagascar to consult in regard to the dispute with France, have advised a passive resistance.

Bulgarian matters seem to be still in a turmoil. General Koulbars, military attaché of the Russian embassy at Vienna, has been ordered by the Czar to accept the appointment of Bulgarian Minister of War.

The Czar of Russia has at last decided to have a constitution, and he has instructed Count Tolsti and Count Katzoff to draw up one. His policy promises to be a liberal one and will give comparatively great freedom to the Russian people.

The Apachés have again been troubling the troops at Casas Grande, Mexico, and have succeeded in outwitting the well laid plans of the Mexicans to capture their two leaders, Ju and Coronimo.

An earthquake shook up the inhabitants of the country near Constantinople, on Wednesday, causing the destruction of six entire villages and nearly 1,000 lives. The place devastated is on the peninsula of Chesme, Asia Minor, opposite Chios and Vourla, on the southern coast of the gulf of Smyrna. The porte has issued a notice stating that over 20,000 people are homeless and asking aid.

Educational.

We print the following to illustrate what the San Francisco schools would cost, if supported on the same basis and as liberally as those of New York. All that need be done is to divide the following figures by *four*, and we have the amount a New York Board would expend in San Francisco.

The Board of Education of New York City report they need for 1884, as follows: For support Nautical School, \$27,500; books, maps, etc., \$155,000; rent, \$30,000; fuel, \$105,000; gas, \$18,000; expenses of Board, \$13,000; expenses of evening schools, \$500; expenses of Normal College, \$6,500; expenses of colored schools, \$300; expenses of ward schools, \$39,000; building fund,

\$32,000; Trustees' clerks, \$3,000; salaries of teachers, \$2,510,000; janitors, \$109,500; Normal College, \$98,000; evening schools, \$83,000; clerks, \$37,000; Superintendents, \$34,050; compulsory education, \$14,500; corporate schools, \$102,000; pianos \$3,500; workshop, \$2,600; sites, \$250,000; new buildings, \$600,000; repairs, \$40,000; furniture, \$45,000; warming and ventilating, \$60,000.

The primary teachers of New York presented a petition to the Board of Education with 900 signatures, asking for a readjustment of salaries. They say: (1) Primary or foundation work is the most important, in that fully one-half the number taught never enter the grammar department. The classes in the primary department are larger; the work exhausts as much vital force, and makes just as large a drain upon the intellectual resources. (2) The candidate for the position of teacher must pass the *same examination* to teach in the primary as in the grammar department. (3) It has been acknowledged by superintendents and other educators that the youngest children require the most capable teachers; but many teachers eminently fitted for primary work are attracted by higher salaries to positions in the grammar departments. They recommend that a minimum of \$550 be established for teachers of boys, to be increased by 30 annually until it reaches the maximum of \$950 at fourteen years of service; this minimum and maximum to be \$50 less for teachers of girls.

The schools in all parts of the little mountain state of West Virginia were never in better condition than now, the Wheeling schools especially. The enrollment is larger than ever before, and the teachers are endeavoring to carry out the most improved methods of teaching. During Thanksgiving week, an institute and superintendents' convention will be held, at which Hon. B. G. Northrop and Col. F. W. Parker are expected to be present.

Two hundred and fifty thousand dollars have been subscribed by Bostonians as a permanent fund for the Massachusetts Institute of Technology, to be called the "William Barton Rogers Fund," the income only to be used for the support of the institute.

The William and Mary College, of Virginia, having but one student at the opening of the present college year, has permanently closed its doors. It was chartered in 1693, and next to Harvard is the oldest college in this country.

The new Scottish Educational Bill will take thousands of children between the ages of ten and fourteen years out of factories and workshops, and send them to the public schools.

The Harvard professors find some pleasure in life, apparently; Professors Goodwin, Thayer, James, Dunbar, and Greenough having lately returned from Europe, and Professor Palmer, of the Philosophical Department, being about to go there, while Professor Jackson, of the Chemistry Department, is abroad for a year.

The Dundee University College, which was founded by Miss Baxter at a cost of \$700,000, has been opened in Dundee, Scotland.

The trustees of the Peabody Educational Fund last year distributed over seventy thousand dollars in aid of the education of the colored people in the Southern States. Grand as is this charity, it meets but a small part of the real want. It is alike the duty and the interest of the Government to lend a helping hand in the promotion of this great work.—*Independent*.

Prof. McAlister, the new City Superintendent of Philadelphia, spent the summer in getting his forces in order, and has commenced the fall campaign with much ardor. He has made a good impression thus far, and the Quaker City is wondering how it ever got along without an educational head before.—*N. Y. Journal*.

It now seems certain that Asbury University will secure the princely endowment offered by Hon. W. C. DePauw. The conditions have been so far met as to practically insure \$240,000, not counting a bequest of not less than \$1,000,000 that will come to the University at Mr. DePauw's death. The name of the institution is to be changed to DePauw University. Would that other rich men were wise enough to thus invest their money while they live.

The education of girls makes no provision, complains George Cary Eggleston in the July *Harper's*, for their lives as wives, mothers, and heads of families. Did it ever occur to Mr. Eggleston, says the *Minnesota School Journal*, that the family is the proper place to learn bread-making, button-sewing, and the care of children?

Principal Camp, of the Dwight School, New Haven, has adopted, to a considerable extent, the industrial system, and it is meeting with great approval on the part of both pupils and parents. He has started by introducing map-drawing, etc., sewing by the girls, and the gradual use of carpenter's tools by the boys.

Judging from the last report of the Kansas City public schools, the educational vitality of some of these new Western cities must be something "immense." Their liberality is proverbial. Thus, in this thriving center of trade, upon a total registration of about 9,000 school children, there were

spent last year \$236,000. Prof. J. M. Greenwood, the superintendent, is showing himself to be an expert in educational matters. One notable feature of his work last year was in directing pupils and teachers in "Courses of Reading" specially arranged for their benefit. We need more of this kind of work in the East.—*New York School Journal*.

A recent circular of the Bureau of Education, shows that of sixty principal countries, Ireland heads the list, with an average of twenty per cent. of her population of 5,159,829 attending school. The United States comes second, with a percentage of nineteen and three-fifths of a population of 50,155,783. The next in line is Germany, with fifteen and nine-tenths of a population of 45,149,172. England and Wales are below even Switzerland. Russia sends but one and one-half per cent. of her population of 78,500,000 to school.

The grandmotherly practice of doing everything for pupils continues in many schools. Their copy-books, sponges, pencils, and even slates are kept in the teacher's closet, and peddled out by monitors—as these machines are called—who put them in position, ready for use, and gather them up again at the close of the "exercise," if any such misnomer can be applied to action that is quite devoid of freedom. The children are carried over all the stiles along the road; they are not allowed to spring over any fences for themselves. To be sure, without this the copy-books, slates, papers, etc., might become dog-eared and dirty, and not look so well as they do with the grandmotherly care. But the children might rise from dog-eared and dirty books to new habits and better things.—*School Education*.

The Chicago Tribune makes the following assertions as to the illiteracy of the Southern States: "Thirty per cent. of the white people, and seventy per cent. of the blacks in the South are illiterate. Looking at the matter from a political point of view, there are 1,350,000 illiterate voters in the South, and of these Kentucky, whose percentage of illiteracy is the smallest, furnishes 43,000 white and 55,000 colored."

An illustration of the absurd changes introduced in French school-books, in obedience to the law requiring all religious references to be expunged, is furnished by the letter of a father lately published in the *Journal d'Alencon*. Thus, in the "Grammaire de l'Enfance," the example, "The catechism is a book," has been changed to "Iron is a metal"; "Notre Dame is a proper name" to "Corsica is a proper name," and "Cain killed his brother Abel," to "Italy resembles a boot in shape." A little poem, "The Goodness of God," is

suppressed, and "The asses' flower—the thistle," substituted. "Thanks, my God," has been improved into "Thanks, whoever thou art"; and "A child to whom Providence has given such parents," is shortened into "A child who has such parents." These, however, are not so silly as some of the other alterations. Thus, "The Creator heard the horse with patience" appears as "Jupiter heard," etc.; and "Jupiter is substituted for "Creator" wherever it occurs in the lesson.—*Good Literature.*

Says the *Boston Courier*: "The fact today is, that the 'Quincy' system has somehow failed to take hold of the American public, and a great many bitter and savage things have been said of that same public in consequence." But the fact is, the *Boston Courier* doesn't know what it is talking about. The "Quincy System" "took hold" in the West long before Quincy or the *Courier* ever heard of it. A small part of the American public live outside of Boston, (or San Francisco, for that matter) and no bitter or savage things need be said of it, for that public has been ready enough to pay for "Quincy" whenever it could be had.

At the *Ecole Normale Supérieure* of Paris the hours of instruction and study are twelve and a half out of the twenty-four. No wonder that it is not a rare thing to read in the German, French and Belgian papers of school-boys who have committed suicide from depression arising from overwork.

Personal.

In speaking to the students of Haverford college, Pennsylvania, Lord Coleridge said: "A poet whom I admired very much in college, and have always admired as a poet, though there was much in the life of the man, and some things in his writings, which are by no means to be commended, was Shelley. Then the poet on whom the best subsequent poetry has been built, the true master of Tennyson, a man of the richest fancy and most exquisite diction—John Keats. I beg you to learn by ear his 'Hyperion,' his 'Ode on a Grecian Urn,' and 'Ode to a Nightingale.'" You may be surprised at the name I shall select from your American poets, when I tell you to learn Bryant. I do not say Longfellow, because, although he is a sweet and noble and delightful poet, he is not American—I mean that his poetry might just as well have been written in England, or Italy, or Germany, or France, as in America; but Mr. Bryant's poetry is full of the characteristics of his own country, as well as noble, natural, and invigorating."—*Good Literature.*

Dr. A. M. Bell, a Brooklyn physician, said before the Labor Committee, there are 20,000 preventable deaths in New York City yearly. Speaking of the value of life, he said in England a child at birth had been estimated as worth to the community \$12.50. When ten years old he was worth \$260, and at the age of twenty his value had been \$600 a year. The loss, thus estimated, by deaths in New York was \$14,000,000 annually. One hundred thousand of the deaths, he thought, in the United States were due to intemperance. Intemperance in the use of alcoholic drinks should be made punishable. In the old days of the lash in the navy, Dr. Bell had seen young drunkards cured by its use. The employments of the working men in many cases shortened their lives. One man a day, on an average, was killed by boiler explosions. Eighty-five per cent. of the accidents to machinery were from defects in boilers. The life of a brakeman in active duty is 10 years, or 2 years less than the barkeeper's average.—*N. Y. Journal.*

Jay Gould, in his testimony before the Senate Commission on Education and Labor, commits himself to the doctrine that the only safeguard of society is general education. Schools, he thinks, are much more efficient coadjutors of the laboring classes than are labor unions and strikes.

At the Geodetic Association held in Rome last week, the report which was adopted favored the adoption of the Greenwich Meridian as the universal meridian, and also recommended the mean noon at Greenwich as the point of departure for a universal hour. It is thought that if a unification of longitudes can be agreed upon, England will advance the unification of weights and measures by joining the metrical convention and adopting that system.—*The Present Age.*

Dr. Thomas Clifford Allbutt, of the Leeds General Infirmary, holds that as a rule private schools for girls are utter failures, suppressing the animal spirits, giving no true education, and developing neither mind nor body.

The notion that it is unhealthy to sleep in a room with growing plants Professor Kedric, of the Michigan Agricultural College, says, after having made experiments, is sheer nonsense.

James Russell Lowell has been placed in nomination for Rectorship of the University of St. Andrew's, the oldest University in Scotland, by the students. Mr. W. H. Mallock is his rival.

Mr. H. M. Stanley estimates the population of the Congo basin to be over fifty-nine millions.

Mr. Ruskin has been elected president of a newly formed society in London, which will endeavor to give Art a more prominent place in the education of children.

The population of the British Empire is 315 millions, and the rate of increase is about two and a-half millions per year.

The physicians of Portugal have been striving to make cremation of the bodies of the dead compulsory. They have been bitterly opposed by the clergy, and finally the matter has been temporarily settled by the government, decreeing that the matter shall be purely optional, but that in cases of infectious diseases in dangerous quarters cremation must be employed.

Of the two daughters of the poet Longfellow who have entered Newham College, England, Miss Alice will devote herself to mathematics and Miss Annie to art and the classics.

Lord Chief Justice Coleridge, of England, sat with the justices on the bench of the supreme court at Washington, and listened attentively to the proceedings. The courtroom was crowded with spectators, many of them being ladies. Dinner was given in his honor by Chief Justice Waite, and a reception followed.

De Soto's bones are taking their journey from Helena, Arkansas, to the Smithsonian Institute at Washington.

Sunshine, fresh air, and a good digestion are the only specifics for a fine complexion, says Dr. Dio Lewis.

Mr. Alcott and his daughters live in Concord, Mass., in the house that Thoreau died in. The old Manse is not used now. The building in which the Concord School of Philosophy was held is situated in the yard of the Manse.

The youngest daughter of the famous David Crockett, Mrs. Matilda Field, is living, at the age of sixty-two, in Tennessee.

Miss Hattie Crocker has just started from San Francisco with Lord and Lady Waterlow for a tour round the world. She is the heiress of some forty million dollars, and is a very sensible girl.—*Harper's Bazar*.

Perhaps an item, which, if not more interesting, is certainly worthy of more interest, is that Miss Crocker, both by real sympathy and with money aid, is doing much to foster the free Kindergartens of San Francisco. Her personal subscriptions last year amounted to \$1,700.—*Ed. JOURNAL*.

The health of Herbert Spencer has greatly improved, and he has nearly completed another volume of his great work on sociology.

General.

Pope Leo XIII. has thrown open the library of the Vatican to the students of historical subjects, who, under his control of course, and with certain restrictions, may be disposed to search after truth.

The Mohegans, who number a few hundreds—all that is left of the strongest tribe that in the seventeenth century were the chief reliance of the whites in Eastern Connecticut, in the wars with the Pequots and Narragansetts of Rhode Island—and whose reservation is a few miles south of Norwich, Connecticut, have just celebrated the yearly festival of the "harvest moon," commemorating their conversion to Christianity.

The recent scheme for exhuming the remains of Shakespeare, at Stratford-on-Avon, has been frustrated by the Mayor of the town and the officers of the corporation, who have refused their consent, without which the exhuming cannot take place.

A man was given the alternative of paying a fine of \$1000 or serving twelve months in the chain-gang the other day, in Atlanta, Georgia, for having circulated an indecent periodical in the State.

The trustees of the British Museum have lately received from Pekin some typographical curiosities, in the shape of eight volumes containing portions of two Chinese works printed during the thirteenth century. The paper is the ordinary Chinese paper, and is in one case much discolored by age. The volumes are well preserved, and once belonged to the library of a Chinese prince, who, in consequence of a political intrigue, was in 1860 condemned to die by a "silken cord." These books are printed from wooden blocks.

The age of the earth is placed by some at five hundred millions of years; and still others of later time, among them the Duke of Argyll, place it at ten million years, knowing what processes have been gone through. Other planets go through the same process. The reason that the other planets differ so much from the earth is that they are in a much earlier or later state of existence. The earth must become old. Newton surmised, although he could give no reason for it, that the earth would at one time lose all its water and become dry. Since then it has been found that Newton was correct. As the earth keeps cooling it will become porous, and great cavities will be formed in the interior, which will take in the water. It is estimated that this process is now in progress, so far that the water diminishes at about the rate of the thickness of a sheet of writing paper each year. At this rate, in six million years the water will have sunk a mile, and in fifteen million years every trace of water will have disappeared.

from the face of the globe. The nitrogen and oxygen in the atmosphere are also diminishing all the time. It is in an inappreciable degree; but the time will come when the air will be so thin that no creatures we know can breathe it and live; the time will come when the world cannot support life. That will be the period of old age, and then will come death.—*R. A. Proctor.*

On Sept. 3d, Prof. W. R. Brooks discovered a faint nebula, which rapidly increased in brilliancy, and which subsequent observations proved to be an approaching comet. It is now quite certain that the stranger is the comet originally discovered by Pons, at Marseilles, July 20, 1812, when its period was determined to be about seventy and one-half years. At that time it was a moderately bright object, clearly to be seen by the naked eye, and having a tail one or two degrees long. During the present visit it will not be visible, in all probability, without a glass, until the latter part of next January. According to calculations made by Prof. S. C. Chandler, Jr., the position of the comet on the 10th inst. will be right ascension, 16 hours, 33 minutes, and 44 seconds; and declination, 56 degrees, 51

minutes north. On the 26th inst., right ascension, 16 hours, 55 minutes, 6 seconds; and declination, 53 degrees, 40 minutes north.

The United States has had a large territorial growth, as well as a development otherwise. The area of the thirteen original States and their outlying territory, in 1783, was estimated at 800,000 square miles; in 1854, at 2,936,166; in 1883, at about 3,466,000. The following are the statistics of the area.

	SQUARE MILES.
Original limits of the thirteen states.....	800,000
Louisiana, purchased of France in 1803, for \$15,000,000.....	899,579
Florida, purchased of Spain, in 1819, for \$3,000,000.....	66,900
Territory confirmed by the Oregon treaty in 1842 and 1846.....	308,052
Texas, annexed, 1844.....	308,000
New Mexico and California, 1848 (cost of the war and debts assumed), \$18,500,000.....	522,955
Part of Arizona, Gadsden purchase of 1853, \$10,000,000.....	30,000
Alaska, purchased 1867, for \$7,200,000.....	500,000
Total.....	3,466,156

Note: When Texas was annexed, the U. S. assumed debts to the amount of \$7,500,000.—*Minnesota Education.*

BOOK NOTICES.*

SHORT STUDIES IN LITERATURE: Albert P. Southwick, A. M. Eldridge & Brother, Phila.

VOICE FOR THE SPEECHLESS. By Abraham Firth. Published by Houghton, Mifflin & Co. A. L. Bancroft, San Francisco, Price 75 cts.

FRENCH READINGS. W. I. Knapp. Ginn, Heath & Co.

CLASSICS FOR CHILDREN: Merchant of Venice by Rev. Henry N. Hudson, LL. D. Published by Ginn, Heath & Co.

A HAND-BOOK OF MYTHOLOGY, by S. A. Edwards, teacher of mythology in the Girls' Normal School, Pa. Eldridge & Brother, Publishers, Phila.

A WORD TO THE WISE. Hints on current improprieties of expression in writing and speaking, by Parry Gwynne. E. P. Dutton & Co., New York. Price 25 cts.

NOTES OF TALKS ON TEACHING: given by Francis W. Parker, at the Martha's Vineyard Summer Institute; reported by

Lelia E. Patridge. E. L. Kellogg & Co., New York. Price \$1.

ENGLISH CLASSICS. With explanatory notes; including THE EVE OF ST. AGNES, by John Keats, ALEXANDER'S FEAST, and MAC FLECNOE by John Dryden; by J. W. Hales, M. A.

THE LEGEND OF SLEEPY HOLLOW, by Washington Irving. MEMORY QUOTATIONS FROM ENGLISH CLASSIC AUTHORS, by Albert F. Blaisdell, A. M.

CAVALIER POETS. By Chas. W. Pearson, A. M. Clark & Maynard, N. Y., Publishers.

SYLLABUS OF COURSES IN RHETORICAL TRAINING. By Charles H. J. Douglas, A. M. Clark & Maynard, N. Y.

THE TEACHERS' AND STUDENTS' LIBRARY. By G. Dallas Lind. T. S. Denison, Publisher, Chicago. Price \$3.

A NATURAL HISTORY READER for school and home. Compiled and arranged by James Johonnot. D. Appleton & Co., New York. J. T. White & Co., San Francisco. Price \$1.50

* Owing to the absence of the Editor of the JOURNAL from the city, he being at Red Bluff attending the Teachers' Institute of Tehama County, reviews of the books named, are deferred until the issue for December.

HAND-BOOK OF CIVIL GOVERNMENT under the Constitution of the United States, for the use of schools and academies. By Thomas D. Suplée, A. M., F. C. S. Eldridge & Brother, Philadelphia.

NATURAL PHILOSOPHY by Isaac Sharpless, Sc. D. Haverford College, and G. M. Philips, A. M., State Normal, Pa. J. B. Lippincott & Co. For sale by Joseph A. Hoffman, San Francisco.

AMONG THE LAKES, by W. O. Stoddard. New York: Charles Scribners' Sons. San Francisco: A. L. Bancroft & Co.

THE ELEMENTS OF CHEMISTRY. For the use of schools, academies and colleges. By Edwin J. Houston, A. M. Eldridge & Brother, Philadelphia.

THE NORMAL MUSIC COURSE. By John W. Tufts and H. E. Holt, New York, Boston, Chicago and San Francisco: D. Appleton & Co. San Francisco: J. T. White & Co.

METHODS OF TEACHING. By Albert N. Raub, Ph. D., Loch Haven, Pa.: E. L. Raub & Co.

HOT PLOWSHARES. By Albion W. Tourgée. New York: Fords, Howard & Hubbert. San Francisco: A. L. Bancroft & Co.

BRIEF HISTORY OF GREECE. By J. Dorman Steele, Ph. D. New York and Chicago: A. S. Barnes & Co.

THE MODERN SPELLING BOOK. By J. N. Hunt and H. J. Gourley. New York: Taintor Brothers, Merrill & Co. Price 25 cents.

CORNELIUS NEPOS. By Thomas B. Lindsay, Ph. D. New York: D. Appleton & Co. San Francisco: J. T. White & Co.

THE PRIMER OF POLITENESS. By Alex. M. Gow, A. M. Philadelphia: J. B. Lippincott & Co. San Francisco: Joseph A. Hoffman. Price 75 cts.

A PHYSICIAN'S SERMON TO YOUNG MEN. By William Pratt. New York: M. L. Holbrook & Co.

EXAMPLES FOR ELEMENTARY PRACTICE IN DELINEATION. By Charles H. Moore. Boston: Houghton, Mifflin & Co. San Francisco: A. L. Bancroft & Co.

THE WISDOM OF GOETHE. By John Stuart Blackie. New York: Charles Scribner's Sons. San Francisco: A. L. Bancroft & Co.

THE ENGLISH GRAMMAR OF WILLIAM COBBETT, carefully revised by Alfred Ayres. New York: D. Appleton & Co. Price \$1.00.

HOW TO HELP THE POOR. By Mrs. James T. Fields. Boston: Houghtons, Mifflin & Co. San Francisco: A. L. Bancroft & Co. Price 60 cts.

A TEXT-BOOK ON PHYSICS. By Henry Kiddle, A. M. New York: William Wood & Co.

LITERATURE FOR BEGINNERS. By Harriet B. Swineford. Lock Haven, Pa.: E. L. Raub & Co. Price 75 cts.

ENGLISH VERSE, edited by W. J. Linton and R. H. Stoddard, Chaucer to Burns; LYRICS OF THE XIX CENTURY. Charles Scribner's Sons. San Francisco: A. L. Bancroft & Co. Price \$1. per vol.

THE RIVERSIDE LITERATURE SERIES. THE COURTSHIP OF MILES STANDISH. By Henry W. Longfellow. A. L. Bancroft & Co., San Francisco. Price 15 cts.

LITERARY NOTES.

The Christmas Number of "Harper's Magazine" brings together the most remarkable gathering of authors and artists grouped under one (paper) roof. The former include, among others, George William Curtis, John G. Whittier, Miss Thackeray (Mrs. Ritchie), E. P. Roe, William Black, W. D. Howells, George H. Boughton, Austin Dobson, Charles Reade, Edward Everett Hale, and Charles Dudley Warner; while among the artists are E. A. Abbey, James C. Beard, George H. Boughton, F. S. Church, Frederick Dielman, Alfred Fredericks, A. B. Frost, W. Hamilton Gibson, Alfred Parsons, Howard Pyle, C. S. Reinhart, W. L. Shepherd, and Jessie Curtiss Shepherd. There will also be illustrations from paintings by G. F. Watts, R. A., and from unpublished sketches by Thackeray, Frederick Walker, and Dante Gabriel Rossetti. The number will include four plate-paper pages, in addition to the usual size of the "Magazine."

Mr. E. P. Roe will furnish a serial story for "Harper's Monthly," to be illustrated by Gifford and Dielman. "Nature's Serial Story" will be the title.

Mr. Charles Reade is writing for "Harper's Weekly" a series of papers on "Bible Characters."

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CHAPTER VIII.

MISCHIEF AND A RUNAWAY.

WE like to stand well in the opinions of others. We like to be able to match a tale of some exploit with another tale of like daring, of which we are the hero. But we should be sure that we are doing that which we could honestly and heartily commend in others, when the action is stripped of the daring; for the bravery of the thing is really all there is to commend, in many boasted exploits.

The pupils of the Modoc School had kept out of mischief, partly because they had been kept profitably employed, but also because mischief had never been presented to them in a seductive light.

After they had been at Canada Grande about nine months, two young cousins of May Harvey came to pay her a visit. They had been attending a city academy, and were just that age when most boys like to talk big, and do not confine themselves strictly to the truth in so doing.

Full of tales of school fun and escapades, they held their admiring audiences spell-bound with tales of tricks on teachers, and "hooking" melons, and daring deeds in which they managed to appear as leaders. While their visit lasted, no thoughts of imitating their exploits passed through the minds of the others. But after they had been gone for a little while, when the boys began to talk big as boys often do, the girls would mention some of the feats they had heard of, and tell the boys they would not dare to do such things.

There are always a few incorruptibles, and Archie King was one of these.

"Why should we steal melons when we have plenty of our own? And if we hadn't, Mr. Brown would give us as many as we want for the asking," he would say.

But Byron Tennyson Jones felt that his honor and the honor of the school was at stake. Something must be done. He could not invent anything new that he thought was worth trying, though he thought more over the matter than he ever did over anything before. At last the idea struck him. Why not do all the things they had heard of and could do,—all on one day, and make a grand blow-out that would excite the whole country? He at once communicated his plan to the others. The twins didn't like to help at the mischief, but it would look cowardly to refuse. The Spanish boys hardly understood what was intended, but announced their willingness to obey orders. The girls agreed to do their share in the finale.

Glen saw, for several days, that something was being more thought of than lessons and work, but he suspected nothing serious.

At last, all was ready, and a night appointed. Bells were muffled, lamp wicks turned down into the lamps, sheep, cattle, and horses were put into unexpected places, and tricks too numerous to relate were apparently performed with the greatest success. Uncle Sam was the first one awakened by the noise, for though the children tried to be as quiet as possible, eleven boys and girls cannot keep very still. Archie King had been left asleep. "We wont tell him anything about it, for he would be sure to blow on us," Byron had said. Uncle Sam, with horse thieves prominent in his mind, dressed himself and hurriedly snatched his shot-gun, and then quietly awoke Glen and Mr. King.

The latter was the first to discover the real state of affairs, and pulling the other two back into the room, he proposed that they should let the children carry out their plans in full, provided they attempted no serious mischief; and after a little consideration Glen agreed to this.

Uncle Sam went back to bed, and the other two watched the young conspirators, now shaking with suppressed laughter, and at times feeling as though they must interfere with the black-snake.

At last everything was completed, and the whole eleven gathered up their clothes and provisions and started towards the mountains.

"A run-away ! sure !" said Glen. "Shall we let them go?"

"Yes, I will follow them and watch them so they will not see me, and bring them back all safe," said Harry King.

Darting into the house, he hastily filled a knapsack with some food, took a field-glass and a rifle, and saying to Glen, "Do not feel alarmed in the least if we are not back for a week," he disappeared in the darkness.

Yes, that was their plan. It will never be known how many boys at some time in their life have run away from home or from school ; but it is certain that the great majority go but a few miles, and then shame-facedly return again, and let nobody know of their intent. But company gives bravery, and if any of the eleven wished to return, they did not tell the others so.

On they went, up the mountain trail, which had never before seemed one half so long and dismal. The moon began to sink in the west, and though the boys tried to put on an air of bravery, they did not succeed in deceiving themselves or the others. The mournful hoot of an owl just ahead of them checked the whole party, and Byron, who had been leading the others, tremblingly

proposed to camp. "Let us leave the trail," he said. "Wild animals, bears, and panthers, often use these trails to come down the mountain."

A mournful wailing cry from Harry King, who was enjoying their fright, hastened their decision, and the children left the ridge and made for the bottom of the cañon.

Now it is always bad policy to leave a trail, and by the time the children reached the water, their clothes were torn, some of their bundles were lost, and not a few bruises could be counted.

It was so dark in the cañon that they finally tried to climb up the other side, and at length sought shelter beneath an over-hanging rock.

"That last cry was a panther," said Flora Blumberg, solemnly. "Let us build a fire, for I have heard that fires will keep away wild animals."

This was agreed to, but to their dismay they found that no one had any matches.

"Rub two sticks together," proposed Joel Crane. But though they rubbed till their arms ached, none of them succeeded in producing even one spark.

After two or three hours of dreary waiting, dawn began to break, but it was a sorry, dispirited party that pursued their way up the mountain side. They had left the trail, and the road was rough and steep, and part of the time they had to crawl on their hands and knees through the thick chapparel brush. Harry King kept the party easily in sight until they again camped for the night, on the other side of the mountains.

At least the children all supposed that they were on the other side from where they had started, but in truth they were on the same side, and only eight or nine miles from Canada Grande. Instead of crossing the main ridge, they had got a little turned around, and had gone over a spur and followed down a cañon which ran nearly at right angles to the one they went up the mountain in.

Their second night was almost as sleepless as their first, but towards morning tired nature re-asserted itself, and they were all buried in a profound slumber.

It may seem strange to some that none of the children had recognized the valley in which they had lived for nine months, but children who are lost and bewildered often fail to recognize places they have known for years.

On waking in the morning, the children found that their entire stock of provisions had disappeared. Then they made a still more frightful discovery. Flora Blumberg, who was a favorite with all, could not be found.

"Some wild animal has eaten her up, and all the food too," said Joseph Crane, trembling with fear. Hester Blumberg and the other girls broke into loud lamentations, and several proposed that the whole party should again cross the mountain and go home.

"We can never climb that mountain again," sobbed Hester, whose strength now began to fail her. "We must find a house and send somebody to look for Flora. I can never go home again if she is not found."

On they struggled, and at last two of the girls declared they could go no farther. We all know the great influence of the mind upon the body. Sick

at heart, the girls had felt their strength leaving them, and they could go no farther. What was to be done? Finally it was decided to leave the three younger girls in the cañon, while the others climbed a neighboring hill to find out in which direction to go for help.

As soon as the others had fairly left them, Harry King stepped out, and in a low, stern voice, bade the three girls follow him.

"Make no noise so the others can hear you," said he, and taking two of them by the hand, he went a few rods down the stream to a house.

A man was just getting into a wagon, and there on a seat beside him was the lost girl. Harry King had taken her softly up while she was asleep, and had carried her to this house, and hired the man to convey her to Canada Grande, for she was almost sick with fatigue and exposure.

"Here are two more captives for you," said he briefly. "Drive fast and answer no questions, and you will get your own price."

Off the team started with the girls, and Harry returned to the party he had left.

"He is taking us to the calaboose," asserted Mary Trotter, after a vain inquiry as to their destination.

"Well! we deserve it, I am sure," said Flora. "But I don't think we are going there, for Mr. King told the man to take good care of me, and so I think he is sending us home."

"If we get home and Mr. Goodwin don't scold and whip us too hard, I'll never be bad again so long as I live," said Caroline Hopper, solemnly.

But what of the others! By the time Mr. King had returned, the absence of the three girls was discovered. After vainly calling and searching, the now thoroughly frightened children ran again up the hill, and made for a curling smoke they saw in the distance.

But the way was long and rough, and by the time they reached a road, they were nearly ready to sink with hunger and fatigue. Suddenly they met a team, and the driver was cheerily whistling to himself, but stopped on seeing the children.

"Will you please tell us where we are?" said Byron, plucking up a little courage at this unexpected meeting. "We are Mr. Goodwin's pupils, and we have lost our way."

"The young Modocs, I declare," laughed the man. "Been on the war path, too, I'll be bound. Keep right on this road, and if you travel far enough, it will lead you to your reservation."

"Please sir," said Joel desperately. "We are all give out, and if you will turn around and take us home, I'll give you all my chickens."

"And I, too," said Joseph eagerly.

Byron hesitated. He wanted to get home as badly as the others, but he didn't want to lose his poultry if he could save them. The man saw and understood his hesitation. "And what says this warrior? Will he add his chickens to the fund?"

Byron still hesitated, and the man now caught sight of Mr. King, who was partly concealed behind a tree, and was motioning the man to come on and

leave the children, who were now only about five miles from home. Understanding the situation at once, the man told Byron he wouldn't make a bargain with so stingy a chap, and whipping up his horses, despite the calls of the children, he drove on.

Utterly broken down, the children berated Byron, and laid the whole blame of their mishaps upon his shoulders.

Slowly proceeding on the way the man said led to the school, the children wearily plodded on, and soon began to recognize where they were.

Words cannot describe the relief they felt when they at last reached Canada Grande, and found those they had supposed lost already there.

Glen gave them not a word of reproof, but the pupils held a little meeting, and that evening came to him in a body, asking his forgiveness, and promising never to do the like again. And they never did.

Santa Paula.

C. M. DRAKE.

COLLEGE JOKES.—If all the funny sayings and witticisms uttered in college lecture-rooms during a year could be collected, there would be material enough to make the most readable of books. Unfortunately, many of the best jokes are understood by the class alone, and when taken out of their setting lose their brilliancy. Some of these incidents, however, may be appreciated by the public.

The coolness of the average college student was seldom better illustrated than by this incident:

The college term had nearly closed, when the President sent for a student who had not paid his term bill. The sum was a small one, and the President, after remonstrating with Mr. S—— on his tardiness in complying with the rules, said:

"Why, I should think you could borrow such a small sum. Any one would be willing to lend it to you."

"That's just what I thought," replied S——, "and so I will borrow it of you!"

It is told of the same student that he once returned to college from the Christmas holidays a week after the beginning of the term. The President being strict in noting absences of this kind, S—— soon found himself in the "awful presence," to give an account of himself.

"Mr. S——, why did you remain at home after the term opened?" demanded the President.

"Well, sir, the fact is, I was having such a jolly time there, that I didn't want to leave."

"Well, well, Mr. S——, I want you to understand, sir, that we don't come to college to have a jolly time."

"That's just what I was thinking, sir."—*Youth's Companion*.

THE LAW OF MENTAL DEVELOPMENT.

SECOND PAPER.

OBJECT-TEACHING is in complete harmony with the law of development, as may be very clearly shown. As an illustration of the correspondence indicated, we will take the familiar example of a little boy just entering school. We open the book containing the object-lessons and call the pupil's attention to the picture of a dog. If we ask him to name the object, he will at once say, "It is a dog." He recognizes the similarity between a dog and the picture, by reason of a sensation such as the perception of a dog has produced upon his mind. The active faculty of perception and the passive state of sensation—two essential conditions of knowledge—coexist. But reflection must be called into exercise before he can distinguish between the living dog and its ideal representation. If we now ask him to look at a dog and then at the picture, and tell us what difference he sees in them, he at once reflects upon the living dog and the sensation produced in the mind and then upon the picture and its impressions, and he immediately observes a difference which he will describe more or less distinctly. If no living dog be present, his memory recalls the impression produced by perception, and his description of the difference between the real and the ideal dog will be as clear and satisfactory as in the presence of both. In the latter case he has two distinct ideas, one of a real and the other of an ideal object, and he sees the distinction. He has now gained a true conception of a dog, as compared with the picture.

We now call the child's attention to the word "dog." Here he is entirely at a loss to see any similarity between the name and the dog. His perceptive faculty must now be assisted, not to see a resemblance where there is none, but to associate the form of the word with the object, which it is arbitrarily employed to represent. He has only to transfer his conception of the dog to the word, keeping in mind the distinction between the ideal, the real, and the nominal, and he will soon become familiar with the three forms of the one conception. His knowledge of the word is now wholly independent of the combination of letters composing it, which he can hereafter easily distinguish, when his powers of reflection have been developed by similar exercises upon the names of familiar objects.

Having thus accumulated a stock of ideas, the pupil will be prepared for the work of classification and arrangement of his conceptions in simple forms of expression. The higher faculties being gradually called into action, he will find fresh inspiration at each successive step of his upward course, in new conceptions of external objects and of their manifold relations. The peculiar advantages of objective instruction will continually become more apparent, as he enlarges his range of observation and reflection. Especially when he enters upon the investigation of more abstract questions, in which memory and reason are called into vigorous exercise, will he find facility of thought. In the study of language and natural science he will have clear perceptions, quick sensations, and definite conceptions of related facts and principles, while

memory and reason will rear a solid superstructure upon the substantial basis thus laid in his early instruction.

The primary significance of the term chosen to designate the several processes of mental development, which we have considered in their philosophical and practical aspects, conforms to the view we have taken of them. Education is the act of leading out the higher mental and moral faculties of man, through the successive processes of perception, sensation, reflection, and conception. If we compare the process of language-structure with the most approved method of its investigation, for the purpose of discovering its complex relations, we find a complete correspondence between the law of its construction and an effective educational system. In pursuing the science of language, as in all departments of scientific investigation, the analytical method precedes the synthetical, familiarizing the mind of the learner with the simple elements of complex combinations, and enabling him to trace their relations in the reconstruction of language upon the identical basis of its original formation. Hence, in connection with the analytical process, preliminary definitions are given of each new factor employed in the structural or synthetic exercise, which is coupled with the analytic. This is the true scientific method to which the world owes all modern progress, and to which man must look for the achievement of triumphs over nature, surpassing in interest all that has been accomplished in the past.

In this conformity of educational work to a fundamental law we find the ends and aims of our educational system. The ends to be obtained are as manifold as the practical pursuits of life, and the aims should correspond to the demands made upon those who are to engage in those pursuits. Our methods should therefore conform to the requirements made upon us. In all the lower departments of public instruction, the chief end to be attained must be recognized and insisted upon. That end is a thorough familiarity with the elementary principles of every branch of knowledge in which instruction is given. It is essential to the accomplishment of this object that every principle, when made familiar, be at once embodied in a practical form, thus leading the expanding mind to habits of reflection upon new sensations, as related to the perception of new facts and principles, and as the basis of exercise for the higher rational faculties in combination and arrangement of those newly discovered truths. To attain this important end, the system of object-teaching, begun in the primary school, should be constantly pursued, the pupil's interest meanwhile being maintained by the successive introduction of new objects. Hence, each child should very early be taught to combine letters in simple words, and those again into short sentences, expressing original conceptions of external objects and of their relations to each other. As far as possible, all spelling should be done in writing, and the simple processes of arithmetic expressed in numbers, as well as the formulas of mental recitation. In geography, the location of places should be pointed out on the outline map and indicated by original drawing. In grammar, perfect familiarity with fundamental principles is absolutely essential to progress; and when this is attained the analytic and synthetic processes will be full of interest and easily acquired.

In the higher departments of our public schools, each pupil should be encouraged and urged to consider the question of special preparation for the practical duties of future life. The great defect in our educational system is found at this point, where individual adaptations and inclinations indicate the necessity for a diversity of qualifications, which no general course of prescribed study can possibly secure to all classes. It may therefore be assumed that at this point of divergence the work of technical education should be begun. The boundary lines of the strictly scientific, the professional, and the practical pursuits of life naturally diverge where special training becomes essential to success in those pursuits. Hence, the higher departments of public instruction and our academical schools form the connecting links between the general and the special fields of drill in mental culture and practical application of essential fundamental principles. From this radiating center proceed the numerous beaten highways of intelligent effort, extending toward every point in the horizon of human thought and activity. Some of these tracks again diverge beyond the walls of the university, their radiating lines ramifying in the vast and remote fields of scientific investigation, of professional labor, and of industrial art. Hence arises the necessity for special schools of training, in which the university graduate may acquire a technical knowledge of his chosen vocation. But in these schools he also meets those whose line of preparatory study have diverged from the common track at some point nearer to the common center than his own. And thus it becomes necessary for men of varied attainments to pursue their occupations in close proximity and in the same department of effort. In every instance of this kind, other things being equal, the man possessing the highest culture should also be the most thoroughly practical in his pursuit, and therefore entitled to pre-eminence by virtue of an acknowledged superiority.

Yet the facts indicate, in a great number of cases, the exact reverse of what should be anticipated, and we see men of large abilities and vast opportunities sinking into comparative insignificance through the overtowering superiority of those whose talents do not excel and whose scientific training falls far below their own. The only rational explanation of this fact is found in a general neglect of practical training in the application of familiar principles during the course of instruction. In the almost total neglect of the natural sciences in favor of purely mathematical and linguistic studies, which has long marked our academical and collegiate courses of instruction, we perceive the source of inevitable evils, not the least of which is the deplorable fact that so many graduates from our institutions of learning signally fail to distinguish themselves in the practical duties of life. Happily, this defect has of late been partially corrected in the establishment of technical schools, in which a practical application of scientific principles is made a primary condition of all instruction, while a more thorough scientific course of study has been prescribed in our higher schools of learning. In connection with these progressive measures, which the scientific spirit of the age has demanded and secured, it is equally important that teachers of all grades should recognize the necessity of diligent effort in awakening the minds of their pupils; not only to under-

stand and apply each new principle as it is presented for consideration, but also to ascertain their personal inclinations and adaptations to the various pursuits of life, from which they may make an intelligent choice.

JOHN H. DURST.

THE STUDY OF THE TEXT IN GEOGRAPHY.

“THE great conspicuous evil practice in our schools, once almost universal, and still widely prevalent, is that of obliging pupils to commit to memory the words of the text-book.” The teacher assigns a certain number of inches of the column or page as a lesson. In the mind of the pupil the lesson is prepared when every word is committed to memory, and not until then. At the recitation the teacher asks questions involving as nearly as possible the statements made in the text. The pupil relies upon some catch-word, or some association of position or appearance upon the page, to suggest the right words to constitute an answer. If he succeeds in repeating the language of the book (albeit it conveys not a thought to his mind), it is accepted as a satisfactory performance. If he fails, he is again condemned to the task of “committing” the lesson.

The author above quoted cites the instance of a child who was detained after school because she had forgotten a single word in her geography lesson. “Upon examination the following was found to be the sentence which made the difficulty, and which she and other members of the class were obliged to repeat: ‘The Danubian provinces of Servia, Moldavia, and Wallachia are nominally independent of the Sublime Porte.’ The instance is not a remarkably rare one.”

To teach pupils “how to study” should be made a cardinal object of instruction, especially in intermediate schools. Children should be brought to see the difference between study and “learning by rote”—between memorizing words and thinking thoughts. No other line of school work affords a better opportunity for this than the study of the text in Geography.

For illustration, take the chapter upon Europe, in Guyot’s *Intermediate Geography*, and let it be supposed that the class has mastered the map studies as preliminary to the study of the text.

In order that a right standard for the preparation of a lesson may be fixed in the minds of the pupils, let an intelligent and thoughtful reading of the text, and not the recitation thereof, be made for a time the prominent thing. To this end, let the teacher lead the study of the lesson, according to a plan which he has previously prepared. The whole class attending to their books, individual pupils may be called upon in turn to read aloud a sentence or paragraph—the dictionaries of all may be brought to bear upon unfamiliar words—the reader or some other one may express the thought in different language, as many paraphrases as possible being thus obtained—all the class may find upon the map the location referred to in the paragraph read—a map may be

quickly sketched upon the blackboard or slate to present the fact more clearly—cause and effect may be traced between facts in the lesson, or a fact in to-day's lesson may be made to recall a fact learned yesterday or last year—comparison and contrast may be made—illustrations may be given from the reading or experience of teacher or pupil—reference may be made to pictures in the text-book or out of it—items may be presented from the newspaper touching upon localities or information mentioned in the text, etc., etc.

At the beginning of the succeeding day's lesson, the teacher may ask questions upon the important points brought out in the conversational reading of the preceding day, and then a new portion of the text may be taken up and subjected to similar treatment.

Let the text of the entire chapter be thus read from day to day—thoughtfulness, intelligence, and interest being made of much greater importance than recollection, and no place whatever being given to verbal memory. When the text of the whole continent has been thus studied, it must then be reviewed for the purpose of fixing information in the memory, and calling the judgment and reason into exercise. In conducting this review the teacher should constantly bear in mind four essential principles, viz : 1. The pupil must be led to see the text on the map. 2. The text must be reviewed by *topics* and not by *inches*. 3. Comparison must be made (*a*) of facts in European geography, one with another; (*b*) of facts in the geography of Europe with facts in the geography of other countries previously studied. 4. Contrasts must be made (*a*) and (*b*) as in 3.

The following questions and exercises afford an exhaustive review of the text above referred to, in accordance with the four foregoing principles.

I. THE COUNTRIES OF EUROPE.—*I. Location*.—1. Give the natural boundaries of Low Europe.

2. Give the natural boundaries of High Europe.
3. Name all the peninsular countries of Europe and the waters adjacent to each.
4. Name and bound all the countries in the mountain region.
5. What countries comprise Low Europe?
6. Which countries have foreign possessions, and what?
7. What European city is directly east of Indianapolis? What point on the coast of North America is directly west of London?

II. Surface.—1. Point out on map the natural regions of High Europe?

2. How does the surface of High Europe compare with the surface of Low Europe?
3. Point out the highest portion of High Europe.
4. Point out the most extensive plain of Low Europe.
5. What fact concerning the region of the lower Mississippi is suggested by the description of Holland?

III. Rivers.—1. Name the five Rivers of Low Europe rising in the neighborhood of the Valdai Hills.

2. Through what countries, and into what waters does each flow?

3. Name four rivers of High Europe rising in the neighborhood of the Alps.

4. Through what countries, and into what waters does each flow?

5. What is the longest river of Europe? Compare it with the Mississippi.

IV. *Climate*.—1. Contrast the climate of the Scandinavian peninsula with that of the Italian peninsula, and give reasons for the difference.

2. Which has more rain, probably, Athens or Kharkov?

3. Contrast the climate of England with that of the continental countries of the same latitude, and give reasons.

4. Which has more rain, Madrid or London? Why?

5. New York City and Constantinople are on the same parallel; which has the more snow? Why?

V. *Soil*.—1. Which has the more fertile soil, Sweden or Turkey?

2. Contrast Central Spain as a farming country with Holland.

3. Compare the soil of Denmark with that of the plains of Germany.

4. How do the Belgian plains compare with the plateaux of Portugal as to fertility?

5. Point out three European countries adapted to stock raising, and tell why.

VI. *Productions*.—(a) *Minerals*. 1. With what European countries must the United States compete in the production of iron?

2. Name five European countries which have copper mines, and state where our supply of copper comes from.

3. Which European countries and which American States produce lead?

4. Point out the coal regions of Europe and of this country.

5. Where is zinc found?

6. Where is rock-salt obtained? Why *rock-salt*? Where does the salt supply of this country come from?

7. Where is tin obtained?

8. What European countries have gold and silver mines?

9. Where is quicksilver found? Why *quick-silver*?

10. Point out on the map six great mineral regions of Europe?

11. How do you account for the location of the five great manufacturing cities of England?

(b) *Trees*.—1. Name the countries of Europe noted for their forests.

2. Point out the forest regions of Europe upon the map.

3. Which countries have cone-bearing trees? Why?

4. Which countries have deciduous trees?

5. In what countries are fruit trees green all the year?

6. What valuable tree peculiar to Spain?

7. Why is the mulberry an important tree in Southern Europe?

(c) *Agricultural and Manufacturing Products*.—1. Point out five European countries which produce wool extensively.

2. Point out five wine countries.

3. One corn country.

4. Three hemp countries.
 5. Five flax countries.
 6. Six silk countries.
 7. What production is common to South Carolina and Italy?
 8. To Virginia and Turkey?
 9. One of the United States and a country of Europe are noted for their dairy products. Name them.
 10. What European countries produce orchard fruits?
 11. What extensive use is made of the beet in France?
 12. With what countries must the United States compete in the manufacture of iron?
 13. Would a season of great drought throughout Southern Russia affect the price of wheat in Chicago? Why?
 14. Would a prolonged strike amongst the operatives of the factories of Manchester, England, affect the interests of a planter in Mississippi? How and why?
 15. What European exports might you find in a drug store, and from what country is each obtained?
 16. In a fancy grocery store, etc.?
 17. At a fruit stand, etc.?
 18. At a hardware store, etc.?
 19. At a dry goods store; etc.?
 20. At a queensware store?
 21. Why are all the great fruit markets of Europe south of the mountain region, while all the great grain markets are north?
- II. CITIES OF EUROPE.—1. Name and point out on the map all the capital cities of Europe.
2. Name and locate eight cities of the continent noted as seats of learning.
 3. Three noted for great libraries.
 4. Two noted for trade in books.
 5. Five noted for museums and art galleries.
 6. Ten noted for something in their past history.
 7. Name and locate a manufacturing city of Russia; of Turkey; of Spain. Three of Belgium, naming articles manufactured in each. Five in England. One in Ireland.
 8. In what respect are Valencia, Zurich, and Lyon alike noted?
 9. In what four cities is ship-building an important industry? Point them out.
 10. For what are Athens and Rome alike noted?
 11. What city is noted for the manufacture of jewelry? Of astronomical instruments? For diamond cutting?
 12. Describe London.
 13. In what respect is the trade of Odessa, Konigsberg, Dantzic, Szegedin, Chicago, and Milwaukee alike?

14. Valencia, Messina, Seville, Jacksonville, and San Jose are alike noted for what?

15. What city is noted for its trade in wool, and what one for its manufacture of wool?

16. Compare Pittsburg and Birmingham.

17. How are St. Etienne and New Castle like Scranton and Pittsburg?

18. Name a city of England and one of the continent of Europe noted for the same line of manufacture as Manchester, N. H.

19. Springfield, Mass., is like Liege in what respect?

20. Name and locate fifteen commercial cities of Europe.

III. THE GOVERNMENT.—1. What name is given to the sovereign of Russia? Of Turkey?

2. How does the sovereign of Russia obtain his office? Of Switzerland?

3. Name two countries of Europe in which popular elections are held for the selection of rulers.

4. How does the government of Great Britain differ from that of the United States?

5. What kind of government has Belgium? Greece? Germany? Spain?

6. What are the German "Free Cities?"

IV. PROMISCUOUS QUESTIONS.—1. Which European nations encourage learning?

2. Which have the finest natural scenery?

3. Which afford the best opportunity for the study of art?

4. Which country has volcanoes?

5. Which has the highest mountains?

6. Which have fine lakes?

7. Which is most cut up by the sea?

8. Give two reasons why Italy is such a famous resort for sculptors.

9. In what three respects are Italy and Greece alike?

10. What country exports ice?

11. Which countries have fur-bearing animals?

12. Which have valuable fisheries, and in what waters?

13. What is Syria, and for what is it noted?

ESSAYS.—Write essays upon the following subjects: The Reindeer; Glaciers; The Silk-worm; Herculaneum, and Pompeii.

J. J. MILLS.

In *Indiana School Journal*.

Enthusiastic professor of physics, discussing the organic and inorganic kingdoms: "Now, if I should shut my eyes—*so*—and drop my head—*so*—and should not move, you would say I was a clod. But I move, I leap, I run; then what do you call me?" Voice from the rear: "A clodhopper?" Class is dismissed.

OAKLAND ASTRONOMICAL OBSERVATORY.

THE beautiful observatory recently opened to the people of Oakland is a gift of which any city might justly be proud.

In April last, Mr. Anthony Chabot, a wealthy and public-spirited citizen of Oakland, asked and was granted permission to erect for the city, on Lafayette Square, a suitable building in which should be placed instruments for taking astronomical observations.

The City Council granted him permission to erect such a building, provided an eight-inch aperture, equatorially-mounted achromatic telescope should be placed therein within six months from the passing of the ordinance.

A telescope of the required size had previously been ordered of the celebrated firm of Alvan Clark & Sons, Cambridgeport, Mass. The instrument arrived about the middle of October, and was at once placed in position. Trial has proven it to be a superior instrument of its size.

The building consists of two octagonal towers connected by a reception room. The diameter of the larger tower at the base is eighteen feet, and fifteen feet at the top, and the height to the summit of the dome is fifty-two and one-half feet. A brick pier within this tower rises from a twelve-foot square base, seven feet below the surface of the ground, to the height of fifty-two feet, in the form of the frustum of a pyramid, on the top of which is placed the equatorial. The fifteen-foot dome, resting on cast iron wheels, ingeniously connected as a whole, is very easily moved by a combination of wheel work and traction cord.

A section of the dome extending beyond the zenith is instantly opened by means of a lever and hinge movement.

An observing car moved around the observing room on casters, and finished with an adjustable seat, affords an easy and convenient position for the observer.

The telescope is furnished with all of the usual appliances, including clock motion, a battery of five eye-pieces, ranging in power from forty to eight hundred, diagonals, and a position and filar micrometer. The declination and right ascension circles finely graduated on silver are read by verniers and microscopes. The excellent tele-spectroscope ordered of the Clarks has not as yet arrived.

The smaller tower, fifteen feet in diameter and twenty-six feet in height, is to contain a transit, sidereal clock, chronometer, chronograph barometer, thermometers, and other instruments. The entire section of the transit roof is thrown open at once by a peculiar hinge and lever movement, but different from that opening the section of the dome.

The reception room is elegantly furnished with a Brussels carpet, library table, marble mantel and grate, astronomical photographs, engravings, maps and books.

The elegant enlarged photographs of portions of the moon show, in a vivid manner, the wonderful appearance of this luminary when viewed with a

large telescope, and the beautiful lithographs of lunar craters presented by the Harvard Observatory are marvelously accurate in all of their details.

The building and its appointments have already cost the generous donor upwards of \$8,500.

By the stipulation of Mr. Chabot this observatory is to be under the control of the Oakland Board of Education, who have adopted the following rules and regulations for its government:

1. The objects of the observatory are to facilitate the study of Astronomy in the Oakland High School; to interest the teachers of the public schools and the citizens of Oakland in a more careful study of the wonders of the heavens; and eventually to aid in the advancement of astronomical science by accurate and systematic observations.

2. The Board of Education shall appoint a Director of the Observatory, who shall nominate an Associate Director to be confirmed by the Board, both of whom shall continue in office until they resign or are removed for cause.

3. The Director may appoint not to exceed three assistants, but he shall be directly responsible to the Board of Education for the proper care and use of the observatory and its instruments; and annually during the month of July shall make a written report to the Board of Education of the condition of the observatory and the scientific observations made, together with such other facts of interest as he may deem best.

4. Neither the Director, his Associate, nor any of his assistants shall receive any compensation from the School Department for services rendered in connection with the observatory.

5. The observatory shall be reserved for the use of the class in Astronomy of the Oakland High School, and the teachers of the public schools, at such times as may be designated by the Superintendent of Schools and the Director of the observatory.

6. Citizens of Oakland and residents of other places interested in the study of astronomy shall be admitted to the observatory under the charge of the Director or one of his assistants at such times and in such numbers as may be designated by Director.

7. Persons desiring admittance who do not come under said rule five, or are not members of the Board of Education, must register their names at the office of the Superintendent of Schools before 4 o'clock P. M. of the day of observation; provided, that when the number of persons designated for that observation shall have been reached, then the registration shall be made for the next time of observation.

8. While important scientific observations are being made by the Director or his assistants, rules 5, 6 and 7 shall be void.

9. These rules and regulations may be amended or repealed at any regular meeting of the Board by an affirmative vote of five members; notice of such proposed amendment having been given in writing at a previous meeting.

As soon as all of the requisite instruments are obtained, regular and systematic observations and records will be made.

The square on which the observatory stands is neatly laid out and is being improved.

If the contemplated improvements are carried to completion, this will be one of the most attractive places in the city.

J. C. G.

EDITORIAL DEPARTMENT.

THE STATE TEACHERS' ASSOCIATION.

As we go to press, the State Teachers' Association is holding an interesting session in this city. The attendance is large—that is, the interior is well represented by Superintendents and leading teachers. San Francisco, from her corps of seven hundred, sends less than thirty teachers.

A full report of the doings of the Association will appear in our January issue.

PARTING WORDS FOR 1883.

Volume seven of the JOURNAL is finished with the close of the year. On the whole, the year has not been as prosperous as could be wished. The introduction into the educational system of the State of the pernicious political maxim, "To the victors belong the spoils," has exercised a damaging effect on the prosperity of the JOURNAL, just as the exercise of the same vile policy attacks the well-being of every branch of our government—threatens the very stability of republican institutions.

Had there existed in this State, at the time of the induction of the present educational administration, any other periodical than ours devoted to school interests, we, at least, should have remained silent concerning the diverting of the State appropriation to a rival enterprise.

We should have done more; retired from the field, and left our successor to work untrammelled in improving the schools of the State and the professional character of the occupation of teaching.

Whether or not we have done well in continuing *one* real educational journal in the State, we leave to the professional sentiment of the Pacific Coast teachers.

Those who have read the JOURNAL for the past seven years will not doubt our assertion that if the State organ were, in any sense of the word, an educational journal, if it were of the slightest use to teachers, either in the every-day work of the schoolroom or in inculcating the principles on which methods of teaching are founded, if, in a word, it displayed either knowledge of our system of education or sympathy with our teachers, then the occupation of THE PACIFIC SCHOOL JOURNAL would indeed be gone, and this issue would be our last.

When the State Superintendent of Public Instruction looks over the erstwhile bulky, but now rapidly diminishing size of the "Organ," we feel assured that, as a scholarly gentleman and conscientious man, he can not feel proud of or satisfied with the representative of his department. We write these lines in no spirit of carping criticism. On the contrary, fallible human nature—the I-told-you-so feeling—is too strong to permit anything but a feeling of gratification.

This whole matter confirms the old adage, that "the cobbler should stick to his last."

Whether in the education of youth or in the instruction of our teachers, professional knowledge and training are required; and the work of education can never be successfully carried on until the world recognizes and acts on the dogma that teaching is as purely a profession as law, or medicine, or theology.

THE JOURNAL FOR 1884.

On another page, reference is made to the struggles of the JOURNAL during the year just past. In a few weeks the first number of volume eight will appear. While the volume for 1883 is filled with interesting and valuable matter, it is intended that the forthcoming issues shall show a decided improvement. Articles of value have been promised by our leading educators. A number of country superintendents have agreed to furnish regular correspondence. Some illustrated articles, also, will be published in the course of the year.

In return, we hope the teachers who read these words will favor us with a prompt renewal of their subscriptions. More is necessary: let them aid us with their influence in securing the subscriptions of their fellow-teachers. As at present constituted, the JOURNAL is far from being on a paying basis. It gained largely in subscriptions from teachers during 1883, and an equal gain during 1884 is essential to its continuance. Let us hope that all interested with the JOURNAL and for the JOURNAL in the past, will rally to its support now, and aid us to sustain one really first-class educational journal in this State.

OMITTED.

The publication of our index for 1883 in this number, necessitated the omission of some interesting local news matter, together with reviews of books, examination questions, literary notes, etc. Our January issue will contain the omitted matter, and will prove a number both varied and interesting.

SCIENCE RECORD.

THIS RECORD is under the editorial charge of Prof. J. B. MCCHESENEY, to whom all communications in reference thereto must be addressed.

THE marvelous strength of insects was illustrated recently by Dr. Theobald, of the Maryland Academy of Science, when he produced a beetle which weighed two grains, and placed a weight before it of $5\frac{1}{4}$ ounces, or 2,640 grains, or 1,320 times its own weight, which it moved. According to this, if a man of ordinary weight—say 150 pounds—would show his prowess, he must lift 189,000 pounds, or nearly 100 tons.

As an outcome of the electrical exhibition held in Paris two years ago, and in consequence of the increasing number of uses to which electricity has been applied, the French Government has instituted a society of electricians under the supervision of the Post and Telegraph Department, whose purpose it is to establish a central bureau to which information concerning all recent developments in the science of electricity may be forwarded, and also to aid and promote such development. M. Georges Berger, 99 rue de Grenelle, Paris, is the acting correspondent.

How grand is science! And how can this grandeur be more fitly expressed than when we observe the same great factors of science which can move worlds used in the

alleviation of the smallest ills that flesh is heir to. The London *Electrician* furnishes this "sure cure" for the toothache: "With a small bit of zinc and a bit of silver (any silver coin will do), the zinc placed on one side of the afflicted gum and the silver on the other, by bringing the edges together, the small current of electricity generated immediately and painlessly stops the toothache."

DEAF mutes are taught to speak and comprehend by watching the movements of the lips. According to the *Photographic News*, M. Wanerke has photographed the face of a man in which these movements were perfectly defined, so as to have the exact form corresponding to each sound. By means of these photographs inexperienced persons have been enabled to recognize the different articulations.

A paper read before an English sanitary congress claimed that at an elevation equal to the upper rooms of a high house a drier climate prevails than at lower levels with a not much greater thermometric range. It would seem, then, that dwellings should be built on arches above ground to admit of free ventilation. A contemporary says that our tailed ancestors who lived in tree-tops were in this respect wiser than their modern children of light.

VERY interesting experiments have recently been made in the scientific laboratory of the Kew Gardens, England, by Captain Abney. They consist in actually measuring, approximately, of course, the height and velocity of the clouds. This is done by means of photography, and is accomplished in the following manner: Two cameras are placed at a distance of about six hundred feet apart, which are provided with instantaneous shutters, simultaneously released by electricity. The angle of inclination of each camera is taken, and also the different positions of the cloud in the two photographs. With this for a basis, by trigonometric calculation can be found first the height, and then by successive photographs, the velocity.

A curious cure for cases of consumption has been introduced abroad with some very encouraging cases of success. The patients are ordered to take up their abode in some one of the large vineyards of France, and to constantly be in the atmosphere of the fermenting grape juice. The female patients are made first of all to stand for some hours each day in the sheds where the wine-pressing is going forward. After a while, as the weakness disappears, they are made to jump into the press, and along with the vintagers and other laborers in the vineyard, they are forced to jump and skip, and inhale the fumes of the fermenting juice, until they sometimes become intoxicated, and are borne away senseless. This effect, it is said, wears off after one or two trials, and they return to their labor with renewed strength and heightened color, until they soon find themselves as hopeful and joyous, and as capable of enjoying life, as the most robust among the peasant girls who surround them.

AN Italian professor has been examining a comet now showing itself above Italy. He recognizes it as a comet discovered in 1812, which is returning after being 600,000,000 miles distant from the sun. It is traveling so fast that by the 8th of January it will be 32,000,000 miles nearer the earth than the sun is. The professor regrets that as yet it has only the rudiments of a tail.

MEMBERS of the United States Geological Survey have passed the summer in Yellowstone Park, where they have made investigations as to the character and origin of the geysers. They found five hundred geysers and five thousand hot springs within the limits of the Park, but were surprised at the few evidences of recent volcanic action. A large collection of instantaneous photographs was made, and many specimens, including petrifications of much interest, were secured for the National Museum.

THE C. L. S. C.

This department is under the editorial charge of Mrs. M. H. FIELD, San Jose, to whom all communications relating thereto must be addressed.

The Chautauqua Society has had a steady growth this year. Every mail brings to the Secretary names of fresh applicants for admission; and often comes the welcome news of the formation of large local circles. The remot and small towns frequently exceed the large cities, in the number of circles or of C. L. S. C. students. This is easily explained. Country life is less absorbing, and distracted students and thoughtful people are often glad to flee away to quiet rural districts, the natural habitat of readers. Let the good work go on. Let teachers particularly inquire into this thing, and see how it proposes to aid their work, by making the parents of their scholars interested in books, and thus qualified to guide and assist their children. Every teacher should take *The Chautauquan*, the monthly organ of the C. L. S. C. It is published at Meadville, Penn., and edited by Rev. Dr. Flood. It is full of delightful reading for all classes. History, Biography, Science, and General Literature are all well represented, and the price is only \$1.50 per year. One superintendent of schools in Southern California has procured forty-five subscribers for it. He is a live superintendent, and realizes that popular education should include all ages and classes in society.

In order that the readers of the SCHOOL JOURNAL may once more see the exact aim of the C. L. S. C., we copy the following recent article from Dr. Vincent, the founder of the society.

The C. L. S. C. is like a lofty tower of observation in the center of an important district of country. From the tower one may take a rapid survey of land and sea, city and country, road and river, valley and mountain. He may see the relations of one to the other, appreciate the beauty of the scenery, and resolve what portion of the landscape he will explore more thoroughly after his descent. He is broadened by this outlook, refined by its beauty, and when, later on, he makes a more careful investigation of a particular object or locality, he derives peculiar satisfaction from knowing its relations to the wide realm of his first survey.

The C. L. S. C. gives one, in a four years' course of general reading, such broad vision of the fields of human thought. It points out the long stretch and wide reach of human history. Illustrious men of all centuries and of all nations pass hurriedly before the reader. The great deeds and the great doers are pointed out. The vast world of universal literature is opened—from the first inscriptions on stones and bricks in the Oriental world, to the latest products of the greatest pens of this nineteenth century. Science—that interprets stars and stones, atoms and bioplasms, facts and forces in all departments of human research—is also presented to the C. L. S. C. reader, that he may know how deep and high, and wide and rich, and mysterious are the universe of matter and the glorious mind of man.

What college-students look at in their long curriculum, the C. L. S. C. student may also see. What they admire in literature and art, he may admire.

Afterward he may explore more exhaustively particular regions of knowledge, achieve power, and reap worthy results in attainment. But the first four years he spends in broad outlook, and as he tests he may develop his tastes, and through the added years increase and rejoice in the knowledge and inspiration and usefulness which reward the patient student.

REV. J. H. VINCENT, D. D.

NEW HAVEN, Conn., Sept. 20, 1883.

THE PUPILS' CORNER.

THIS department, which will consist of new, and in many cases original, declamations, poems, dialogues, music, and games, suitable for Friday afternoon exercises, will be under the editorial charge of CHARLES M. DRAKE. Teachers who have matter for the department, or suggestions in regard to it, are solicited to send communications to his address at Santa Paula, Ventura Co., Cal.

TALKS WITH MY BOYS. V.

THE TEACHER'S FAVORITES.

OF course the teacher has favorites, my boys. Don't you believe any one who says the teacher doesn't feel a bit more partial to one pupil than to another. I have favorites myself—dozens of them.

Now, to be a teacher's favorite has its conveniences and its inconveniences; but, on the whole, it is best to be "in with the teacher," and I am going to tell you how to get there.

In the first place, you must like your teacher. You must like him or her *real well*. Without doing this you cannot hope to succeed.

Then, you must let your teacher see that you like him or her. The older a teacher is, the more apt you will be to quickly succeed; for an old bachelor or an old maid is always more or less hungry for love, and having no children of their own, they have to bestow their likings upon other people's children.

You must try to be always neat and clean. If a boy that one always loves has a dirty face, that doesn't matter so much; but a teacher or any one else is not greatly attracted towards a boy with a dirty face whom he has not yet learned to like. Then the face ought to be pleasant and smiling. A cross, sullen face never looks lovable. A smile is a key which unlocks many a heart.

Then you should be polite to your teacher. Say "Good-morning" pleasantly when you enter the school-room. Do you know what "Good-morning" means, when it is said in the right way? It means "I hope you feel good this morning." I have had pupils who seemed to say just that and feel it every time they said "Good-morning" to me. Now, I don't believe in bribing, but an occasional bunch of flowers, a bit of nice fruit, or something of that kind, to show the teacher you thought of him out of school, goes a long way.

Not long ago a man passed my cabin with a load of poles. I laughingly told him if it were chopped up into stove wood I should make him unload, but I felt too constitutionally tired (that means lazy, you know) to chop it myself. His little boy told him when he reached home that he was going to chop it for me; "and lazy as Tom is," his mother told me, "he got the ax and went out and chopped for an hour to get you some wood." Now, I didn't get the wood, for I wouldn't take it, but I did feel grateful to the boy for working for me so willingly.

Study hard in school. It will help you, and it will help please your teacher. It is hard work at first to study, but after a while, a hard student really likes to study.

Then, teachers like to be flattered. All people like to be flattered, if it is done in the right way. If a teacher hears outside that one of his scholars said he was the best teacher he ever had, the teacher is sure to be pleased. So if you always speak well of your teacher it will help you. And I notice good boys always do like their teacher. I have asked a great many of my old pupils how they like their new teacher. Some of the troublesome ones sometimes say "Not a bit"; but the good ones all say "Pretty well," or "First rate," though they would sometimes add, thinking to please me, "Not so well as I do you, though."

Some of the little ones have coaxing ways with teachers as well as parents. Now, I like to be coaxed. Most teachers do. But there is a difference between coaxing and teasing.

Sometimes a pupil comes up to me at recess, and taking my hand in both of his, says, coaxingly, "Please may I, etc.?" Then, if I can, I say "Yes," for I believe in giving boys their own way, if their way is not bad. But if I say "No," and he begins to plead, that is teasing, and I expect I scowl, and sometimes I ask if he knows what "N-O" means, and he and I both feel a little cross.

Then, a word about giving advice.

You may advise your playmates, especially if they are younger than you, what to do in certain cases; but I don't believe your teacher will appreciate any advice you may give him.

Still, advice can be given even to a teacher by a pupil in a proper sort-of way in *all* such cases; and a very good way is to put the advice in the form of a respectful question, as: "Could we not do thus, and so?" "Would this be a good plan?" If the teacher is wise, he may often adopt your *suggestion*, and may even do so to encourage you when he has a better plan of his own that he intended to follow.

I like to have my boys help me manage the school, if they will help in the right way. I want them to learn to manage themselves, and I expect I give them a great deal more liberty than many teachers think is right, but they seldom abuse their privileges. You can get a great many privileges from teachers and parents, if you will not abuse them after you get them. Now let us sum up our rules for getting to be a favorite with the teacher,

Rule I. Be clean; and don't forget your handkerchief.

Rule II. Be pleasant ; in looks as well as words.

Rule III. Be studious ; and punctual, too, at school.

Rule IV. Be honest and truthful. No one likes a liar.

Rule V. Be loving, and don't be afraid to show by word and deed that you love your teacher. When you speak of your teacher, speak kindly, respectfully, and affectionately, if need be ; for some way or other teachers generally hear what their pupils say of them. If you follow these directions faithfully for two months, be sure that not only your teacher, but all who know you will think much more of you than they will if you do otherwise.

Now, if you want a little fun some day at noon, let me advise you to get up

A SACK RACE.

Get some old barley sacks, and let the racers each get into a sack feet foremost, and tie the open end around their waist, or sew strong suspenders to the sacks. Then let them start fair, and run as in other races. The secret of running well in a sack consists in taking very short, quick steps, and in not getting excited.

Here is a little piece some of you might learn as a salutatory some Friday afternoon, when the parents come in to visit your school.

Dear friends, we've asked you here to-day
To pass an hour or two away,
In seeing how your children do [to view.
With their school-master (or mistress), and
Our school-room and ourselves anew.

One word to parents—Every crow
Thinks her own young as white as snow.
And so fond parents often rest
In the delusion that they're blest
With smarter children than the rest.

They wonder why their Sam or John
Hadh't a piece as well as Tom.
They know their boy is quite as good
As any ; and the teacher could
Have given him a piece—and should.

Now all the children couldn't take
A part ; for that, you see, would make
Our program far too long. So now
A few of us will show you how
We all can make a speech or bow.

Our teacher's had but little time
To teach us to spout prose or rhyme.
So, if we children chance to make
Many a funny slip or break,
Remember that you scarce could take

So large a family as mine,
All strange, and in so short a time,
From raw materials, lacking age,
Make each an orator or sage.

There! I guess that will do for this month, so we will stop. That is a very good rule for you boys to follow, too. When you have said enough, stop!

UNCLE CHARLEY.

If we act only for ourselves, to neglect the study of history is not prudent; if we are intrusted with the care of others, it is not just.

Example is always more efficacious than precept. A soldier is formed in war, and a painter must copy pictures.—*Johnson*.

If you want really to master what you think you know, tell it to some body.—*Choate*.

NEWS RECORD.

Foreign and Domestic.

THE question of war between France and China has been taking on a more threatening aspect, until the report of actual engagements is expected hourly. As the matter now stands, with regard to the Chinese, Bac Ninh is still held and is being strongly fortified. Many well armed Chinese regulars crossed the frontier and encamped there on Saturday. Notwithstanding the presence of the French fleet, three army corps of 10,000 men each, and equipped in European fashion, can at very short notice march by three different routes against the French. Among the Chinese troops are many European and American engineers. The French may be able to throw a few bombshells into Canton, but it will be difficult for their fleet to approach the place, as the water is too shallow.

At Hong Kong, Pin-Yuling, a Chinese aide-de-camp, has been sent throughout the entire province of Hoo Pee to establish recruiting stations. He would have no difficulty in raising half a million of men if he desired them; as the district around Hankow has twice the population of London. Thus is China actively preparing for war. At the same time, however, she insists that she is but acting on the defensive, and that, urgently desiring peace, she will still listen to any settlement possible. On the other hand, at this end, France is backing her Admiral to the utmost, and he in turn is continually sending home despatches demanding troops, light boats and money.

The Chamber of Deputies, the Senate, and the Foreign Offices of the Belgian capital, were destroyed by fire in December. The Chamber was in session at the time. The magnificent library was totally destroyed, although some of the archives were saved. The Senate-room itself was one of the finest audience-rooms in Europe. The cause of the fire was a sun-burner in the cupola.

The Forty-eighth Congress assembled at noon on Monday, Dec. 3rd. No particular event marked the first session. The usual formalities of swearing new members in, etc., were gone through with. The election of Speaker of the House was the first business. The candidates were Mr. Carlisle, Mr. Keifer and Mr. Robinson. Mr. Carlisle, the Democratic nominee, was elected, carrying off 191 votes, to Keifer's 112 and Robinson's 2.

The cold snap which passed over the country in the early part of December, succeeded in effectually closing the upper Mississippi to navigation from Dubuque, Iowa,

north. The river froze so rapidly that several ice boats which were on their way down from the north were blocked. But the most terrible effects of the weather were felt on Lakes Michigan and Huron. The whole shipping of these lakes, both north and south, suffered to a greater or less extent.

There has been a great depression in the Pennsylvania iron trade of late, and on Saturday several mills closed down in Pittsburgh, throwing out of employment over 8,000 men; at this period of the year, too, when the cold weather is setting in. It is feared that several others will close before long, on account of the unsatisfactory condition of the trade. The Cambria Iron Company, of Johnstown, Pa., have notified their employes, numbering 5,000 men, that after Dec. 1, all wages will be reduced 10 per cent.

Educational.

At the recent educational congress held in Hasselt, Belgium, members of the English deputation explained the relation of Her Majesty's Inspectors to the Board Schools. The Belgians expressed much astonishment that it should practically be left to Inspectors to decide what children should or should not be promoted. Mr. Heller, who reported the proceedings of the Congress to the National Union of Elementary Teachers, England, says: "In France, Germany, and Belgium it appears—and we took special pains to ascertain the truth—that no one presumes to interfere with the classification of the pupils by the head teachers. It is their constant practice to retain pupils in the same class, or even to put them into a lower class if they fall behind in their work, whether from ill-health, irregular attendance, or deficiency of mental power. Thus the child who is, in the opinion of the teacher, unfitted for promotion, is not pressed unnaturally forward, but placed in that class for which his powers are fitted, and where he will receive the teaching most suitable for his mental stature." With reference to the museum of school books, appliances, and apparatus established at Brussels, Mr. Heller says: "In this museum the typical educational appliances of every civilized country can be seen, and full information can be obtained respecting the prices, and the places where the books, etc., can be obtained."—*N. E. Journal*.

On Third Street, near the Bowery, New York, is the large building of the Turnverein. It is very interesting to see the little fellows in the gymnasium go through their motions, hang from the horizontal bar, leap over wooden horses, or climb smooth poles

to the ceiling. There are ten classes in drawing, aggregating about 500 boys and 200 girls. The course begins with simple elementary forms, and the pupils are taken at six or seven years of age. The instruction is given in the lower classes from large cards prepared for the purpose, and from the blackboard, very much as in the public schools. In the classes a little higher, more complicated forms, embracing examples of the different recognized schools of historic art, are prepared by teachers and used as copies by the pupils. Still higher, prepared copies are used, and drawing from casts, perspective, and geometrical drawing are taught. There is also a class in modeling. For these 700 scholars there are only eight teachers. The classes are divided in their time, most of them coming only twice a week. The time of class work is both afternoon and evening. Many of the students were engaged during the day in the various trades, as carvers, stone-cutters, wood-workers, and especially lithographers. The room in the topmost story is filled with figures, busts, and casts of all sorts, which are used as models by the pupils who work in clay. Among them is the original cast of the statue of Franklin in the Printing House Square. Many of the pupils go to the Cooper Union School to supplement the instruction they get here. The girls take it up as an accomplishment, and very seldom use it in earning a living. The Turnverein (the society that conducts the school) is composed of Germans by birth or descent, associated for mutual physical or intellectual improvement. The schools give instruction in gymnastics, sewing, singing, German, and drawing.—*N. Y. Journal.*

A project is under discussion in Cleveland which is under of being carried out in other cities as well. A number of wealthy gentlemen propose to establish a series of lectures on hygiene, which will be popular in character, and either free, or open on a merely nominal fee. The ground to be covered includes the health and habits of the individual in dressing, eating, sleeping, exercising, and bathing; the hygiene of the household: as, for example, in regard to drainage, ventilation and heating; and municipal hygiene, relating to sewers, water supplies and street-cleaning.

Personal.

Mr. Gladstone, in 1860, thought it would be a great boon to England to have the cheap wines of France, and in arranging a commercial treaty to that effect he expected to promote the interests of temperance by substituting cheap wines for the strong liquors. At a recent conference of the Women's Union of the Church of England Temperance Society, the Rev. Canon Ellison expressed a hope that Mr Gladstone

would cause that treaty to be repealed, since its effect had been "precisely opposite" to that which had been intended. Dr. Norman Kerr lamented the increase of "female intemperance" in London. Many of his lady patients, he said, took so much drink that if they went out-of-doors they would be unable to walk straight.

The rules of Mr. W. E. Foster for the guidance of pupils in using a library are: (1) Begin by basing your reading on your school text-books. (2) Learn the proper use of reference books. (3) Use books, that you may obtain and express ideas of your own. (4) Acquire wholesome habits of reading. (5) Use imaginative literature, but not immoderately. (6) Do not try to cover too much ground. (7) Do not hesitate to ask for assistance and suggestions at the library. (8) See that you make your reading a definite gain to you.

Prof. Huxley, in a paper contributed to the *Agnostic Annual*, claims to be the founder of modern agnosticism.

Prof. T. J. Morgan, D. D., principal of the Normal School at Potsdam, N. Y., has been called to the position of principal of the Rhode Island State Normal School, at Providence. It is understood that he will accept the invitation.

General.

The human pulse has a rather wide range, but the general average may be put about as follows: At birth, 140; at 2 years, 100; at from 16 to 19 years, 80; at manhood, 75; old age, 60. There are, however, great variations consistent with health. Napoleon's pulse is said to have been only 44 in the minute. A case is also related of a healthy man of 87 whose pulse was seldom over 30 during the last two years of his life, and sometimes not more than 26. Another man of 87 years of age enjoyed good health and spirits, with a pulse of 29; and there is also on record the curious instance of a man whose pulse in health was never more than 45, and to be consistent in his inconsistency, when he had fever, his pulse fell to 40, instead of rising, as is usual.

Acting on the idea that cholera enters the system through the digestive canal and not through the air passages, M. Pasteur, in his instructions to the French Scientific Commission sent to Egypt to investigate the nature of the disease, directs that all other drinks be thoroughly boiled, and wine heated before use; food entirely cooked, and eaten from heated vessels; water having been boiled to be kept in vessels that have been once a day subjected to powerful heat, and for washing purposes heated with two per cent. of carbolic acid; bread to be cut in thin slices, and fruits washed in boiling water; and in addition frequent bathing in

boiled water to be practiced. In this country there is little danger of cholera till next year, when the cholera rags get over.

Professor W. G. Sumner's able and brief treatise on *What Social Classes Owe to Each Other* leads the *Eclectic Magazine* to wish that a copy of it could be put into the hands of every thinking man in America, because "it would help to clear up cloudy and sophistical reasoning on subjects where false conclusions tend to disturb the practical harmony of things. After the great mass of platitudes, sentiment, and wild rubbish which has been talked and written on the various social and industrial problems of the time, this little book comes like a burst of sunlight."

Prof. Huxley said in a recent lecture: "I have said before, and I repeat it here, that if a man cannot get literary culture of the highest kind out of his Bible, and Chaucer, and Shakespeare, and Milton, and Hobbs, and Bishop Berkeley, to mention only a few of our illustrious writers—I say, if he cannot get it out of those writers, he cannot get it out of anything; and I would assuredly devote a very large portion of the time of every English child to the careful study of the models of English writing of such varied and wonderful kind as we possess; and, what is still more important and still more neglected, the habit of using that language with precision, and with force, and with art. I fancy we are almost the only nation in the world who seem to think that composition comes by nature. The French attend to their own language; the Germans study theirs; but Englishmen do not seem to think it worth their while."

Great preparations were made in Germany for the celebration of the four-hundredth anniversary of the birth of Martin Luther, the 10th of November last. Among other arrangements it was proposed on that day to issue from the press the first two volumes of a complete and definitive edition of the Reformer's works, which has long been in preparation under the auspices of the Prussian Ministry of Worship, and the editorship of Pfarrer Knaake, of Drakenstedt. It is expected that three volumes will appear in each subsequent year until the completion of the edition some ten or twelve years hence. Herr Bohlau of Weimar will be the publisher.

Mr. Ruskin is never more pleasantly eccentric than when talking *ex cathedra* about girls. Ever since the days of his "Sesame and Lilies," when he drew the outlines of his model damsel on an analysis of one of Wordsworth's poems, he has not failed to make a stir when bewailing or advising the better half of the race. His latest utterance is that "extremely good girls usually die young," probably because the

girls, not less than Mr. Ruskin, love them; but to say so seems rather hard upon girls now living who are not young. As for courtship, "when a youth is fully in love with a girl, and feels that he is wise in loving her, he should at once tell her so plainly, and take his chance with other suitors. No lover should have the insolence to think of being accepted at once, nor should any girl have the cruelty to refuse at once, without severe reasons. If she simply doesn't like him she may send him away for seven years or so. The whole meaning and power of true courtship is probation, and it ought not to be shorter than three years at least, and a girl worth anything ought always to have half a dozen or so suitors under love to her." Mr. Ruskin's reasoning seems to be founded upon the assumption that a good girl—even an extremely good girl—is not as likely to fall in love with a young man as a young man is to fall in love with her, and to be just as desperate about it too; but we are assured by the mother of a good girl, who has made an extended study of the case, that such an assumption would be groundless.—*Harper's Weekly*.

Professor H. Cohn, of Breslau, believes that the use of slates by school children tends to produce short-sightedness; and would substitute either pen and ink or an artificial white slate with black pencil, manufactured in Pilsen, and already introduced into a few German schools. In 1878 Horner found (*Vierteljahrschrift offentl. Gesundheitspflege*, x, 4) that B and E could be read, if black on white ground, 496 cm.; if white on black, 421 cm.; and if gray on black, 330 cm.; and ascribed the greater difficulty with white letters to irradiation. The reflection of light from the surface of slates is, it is said, enough alone to cause their disuse. The school board of Zurich has forbidden the use of the slate after the first term (primary year), and many teachers and oculists advocate the substitution of white boards for blackboards. The noise of slates; dirty habits formed by erasures; bad positions favored by reading the less legible script; a heavy hand; and the habit of twisting, learned with a pencil, and to be unlearned with a pen—these, it is said, are obviated by the use of pen and ink at the outset. The obvious objections are, that children can occupy themselves better with slates, and from pencil to pen is from the easier to the harder.—*Scientific American*.

The vacancy in the principalship of the State Normal School at Potsdam, N. Y., caused by the resignation of General Morgan to take the principalship of the Rhode Island Normal School at Providence, has been wisely filled by the election of Prof. Geo. P. Beard, late principal of the Normal School at California, Pa.

FOR LIGHTER HOURS.

"All work and no play makes Jack a dull boy."

UNABLE TO COMPROMISE.

"**S**AY, mister, you've got a great institution here," observed the tramp, leaning against the counter and gazing through the cashier's pigeon-hole at that functionary with undisguised admiration. "A great institution!"

"We think so," replied the cashier indifferently.

"I suppose an institution like this does more real good in a community than a hospital," and the tramp rested his elbows on a ledge of the window and politely awaited an answer.

"A paper is a great educator," conceded the cashier.

"Makes money for itself and others, I suppose," continued the tramp, delighted with the suave manner in which the cashier imparted information.

"That is the object. Now what do you want around here, anyway? Have you got any business with this great institution?"

"No objection to my admiring the place, is there?" smiled the tramp with unimpaired cheerfulness. "I heard about this paper a good many times, and as I was going past I thought I would step in and pay my respects. How much good have you done the city of Brooklyn since the first of January?"

"How do you suppose I am going to figure that?" growled the cashier.

"Can't you tell me how much you have benefited individuals in the town by the straightforward, manly course you have pursued toward your fellow-citizens?"

"The benefits are incalculable," argued the cashier. "It is not within the power of any man to give them in absolute figures."

"I don't suppose a dollar would begin to cover the actual advantages which each citizen of Brooklyn has derived from being allowed to read this paper every day, would it?"

"Of course not," returned the cashier.

"I say," whispered the tramp, assuming a confidential smile. "I say, think of a poor fellow that doesn't live here, and can't get the paper where he does live; where does his dollar come in?"

"I don't know," murmured the cashier, rubbing his chin and regarding his guest doubtfully.

"Do you think that the owners of the great institution would object to putting up my benefit in one lump, seeing as I am a stranger in these parts? Couldn't you let me have my dollar all at once and make a short day's work of it?"

"No, sir, it couldn't be done under any circumstances."

"Then you think they would rather give me half to-day and let the rest stand over until some time when I am passing again? That ain't business, but I'm willing to accommodate, if you'd prefer it in that way,"

"I think from the way the pressman lifted one of your crowd out of here yesterday that the stockholders would rather let your whole claim stand over until you die, and then turn it over to the heirs."

"Seventy-five per cent is enough for the heirs; gimme a quarter, and I'll let you invest the rest for the lawyers in any way you think is just to them. But you ought to make it a quarter cash."

Just then the pressman reached for him, and as the tramp slid over the transom, he remarked, "Say ten cents, and the other ninety for the executors. How does ten strike you?"—*Brooklyn Eagle*.

A TEACHER'S ANSWER.—President Wayland, of Brown University, was a great teacher. He had the rare art of drawing out a pupil's mind. He did little work for him, but he did make him work for himself.

In the recitation-room, it was clearly understood that the subject of the lesson was one in which students and professors were equally interested. They were encouraged to ask questions, and to express their conscientious dissent from the views of their teacher.

Occasionally a student would abuse this freedom ; but a sharp answer, such as showed the folly of the foolish youth, prevented the renewal of the experiment.

"Do you consider dancing wrong?" asked a student.

"Not much time for that sort of thing in this world, my son. *The next,*" was the reply.

Once, when the subject was the trustworthiness of human testimony and its sufficiency to establish miracles, a skeptical student asked :

"What would you say, Dr. Wayland, if I stated that, as I was coming up College Street, I saw the lamp-post at the corner dance?"

"I should ask you where you had been, my son?" was the effective reply.

On another occasion, while the class was studying the evidences of Christianity, a brilliant young skeptic thought he would have a tilt with the doctor.

"I have never," he said, "been able to discover any internal evidence that the Old Testament was inspired. For instance, doctor, take the book of Proverbs. It needed no inspiration to write that. I have often thought that I could write as good proverbs myself."

"Very well, my son, perhaps you can," quietly answered the doctor. "Suppose you prepare a few and read them to the class to-morrow. *The next.*"

The uninspired proverbs were never read.

AN UNEXPECTED STRIKE.—As an illustration of the tendency of things at the present day, and as a hit at one of its prominent evils, the following, says an exchange, will be duly appreciated by our readers:

A teacher, finding it difficult to obtain the prompt attendance of the boys in her class, resolved to adopt a plan which she felt sure would be successful. She said to the boys :

"Now I will give a bright penny to each one who will be in their places every Sunday."

This plan seemed to work well until one Sunday not a boy appeared in his place. The teacher was surprised and somewhat discouraged that her plan had not succeeded. But the next day, while walking down street and thinking what to do next, she met one of the boys and said to him :

"Well, Johnny, where were you yesterday?"

"At home, mum."

"But why did you and the other boys not come to Sunday school, and get your pennies?"

"O, teacher, 'cause we've struck ; we won't come for less than two cents now."

We were not informed as to how long the strikers held out, or whether the advance was granted.

A WITTY EMPHASIS.—Sydney Smith, whose reputation as a wit shaded his influence as a clergyman, occasionally exhibited his facetiousness in the pulpit. Dean Ramsay tells an incident of him that occurred when Mr. Smith preached in Edinburgh. Comparatively few men attended the church. The witty divine, seeing that the congregation was largely made up of ladies, took for his text the verse in Psalms : "O, that men would therefore praise the Lord!"

Looking round the congregation with a kindly but humorous expression, he said, "O, that *men* would therefore praise the Lord!"

The emphasis laid on "men" gave the point of his meaning, and the worshiping women were quite willing to show by their smiles their appreciation of the witty clergyman's very gentle rebuke.

A Scotch review of a recently issued cheap edition of Johnson's *Rasselas* having come under the eye of the secretary of a literary agency, he forthwith addressed a letter to Samuel Johnson, LL. D., asking his attention to a favorable review of his works, and offering, for a consideration, to glean and send to him cuttings from all London and provincial papers, and as many American, French, Italian, German, Spanish, Norwegian, Swedish, Danish, and other journals as noticed the production. He evidently felt it would have a run.

"Well, Father Brown, how did you like the sermon yesterday?" asked a young preacher. "Ye see, parson," was the reply. "I haven't a fair chance at them sermons of yours. I'm an old man now, and have to sit pretty well back by the stove, and there's old Miss Smithie, Widder Taff, 'n' Ryland's daughters, 'n' Nabb Birt, 'n' all the rest sittin' in front of me with their mouths wide open a, swallerin' down all the best of the sermon, 'n' what gets down to me is putty poor stuff, parson—putty poor stuff."

A judge charging a jury had occasion to make use of the words "mortgagor" and "mortgagee." The foreman of the jury asked the judge the meaning of the words, candidly confessing he did not know their import. His lordship facetiously explained them thus:

"I nod to you—you notice me;
I'm the nod-or, you the nod-ee."

BOOK NOTICES.

TWENTY POEMS FROM HENRY WADSWORTH LONGFELLOW. Illustrated by Paintings by his Son, Ernest W. Longfellow. Boston: Houghton, Mifflin & Co. Price, \$4.00.

This is a beautiful book, appropriate for the holiday season. The pictures, about forty in number, are engraved by some of the best artists in America; and both painters and engravers are permeated with the spirit of the poems. They complement appropriately the text of such gems as "The Day is Done," "It is not always May," "Village Blacksmith," "Seaweed," "Amalfi," "The Lighthouse," "Three Friends of Mine," "Becalmed," "Chrysaor," and others.

That the print and binding are sumptuous need scarcely be said. The imprint of Houghton, Mifflin Co. is a guarantee of the highest excellence, both as regard literary and artistic excellence, and in point mechanical finish.

This is the most beautiful holiday book for a reasonable price issued this season.

A BOUQUET OF CALIFORNIA FLOWERS. By James T. White, San Francisco. J. T. White & Co., 23 Dupont St.

This is a collection of verses appropriate to the holiday season, exhaling the very essence of poetic fervor. Mr. White has caught in his lines more than the mere trick of gracefully turning a rhyme or expressing a common-place thought in poetic garb. There is not a roundel or rondeau in this collection, not inaptly named a "bouquet," that is not a little poetic gem of purest ray. The spirit of each flower seems to touch the inmost chord of the poet's sensibilities, and to find a true interpreter in his verse. The rondeau "Immortelle" is especially beautiful in the exquisite refinement of its thought and expression.

We hope, with Mr. White's permission, to favor our readers with some selections in future issues of the JOURNAL.



